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ABSTRACT

This report describes a study undertaken to assess student choices in medical ethical dilemmas. Medical ethical dilemmas are interpreted to include problems such as abortion, euthanasia, sterilization, experimentation on humans, allocation of scarce medical resources, and physician and health personnel training. The major purpose of the study was to provide pilot work in the relatively new field of medical ethics. Two major hypotheses were tested: (1) that there would be significant differences among responses of students by demographic factors such as age, sex, marital status, religious preference, experience with health care, and curriculum or college; and (2) that there would be no significant difference in respondents' answers between a pre- and posttest. The sample consisted of 405 students registered in medical ethics courses in 12 colleges and universities throughout the United States. In the pretest phase, students were directed during the first week of the semester to respond to 19 questions based on a choice of preferred action to take in case studies in the biomedical area. The posttest phase consisted of administration of the same questionnaire after nine to 10 weeks of the semester had elapsed. Responses were statistically analyzed. Findings indicated that there were no discernible pattern of responses to the questionnaire by demographic factors of students and that, because the posttest responses represented only one-fourth of the original sample, they were considerably too small to be useful for statistical treatment. (DB)

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ABSTRACT

Abstract of a Major Applied Research Project Presented to Nova University in Partial Fulfillment of the Requirements for the Degree of Doctor of Education

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# AN ANALYSIS OF STUDENT CHOICES IN MEDICAL ETHICAL DILEMMAS

By

Phyllis Lerman Woloshin

March, 1979

This study attempted to assess student choices in medical ethical dilemmas by designing an instrument and administering it to 405 students registered in medical ethics courses in twelve colleges across the country. No instrument had been devised to ascertain whether or not students did, in fact, differ in their opinions concerning decision making. A follow-up of a post-test was administered to 105 students from eight colleges of the original pre-test group.

Findings seem to indicate that students do disagree to solutions of medical ethical problems. Statistical analysis included comparisons of questions which were paired for conceptual similarity. These pairings indicated a significant association between all pairs of questions analyzed. No statistical analysis was conducted between the pre- and post-tests since responses on the post-test were too small to be useful.

Recommendations include a continuance of the study over a longer period of time, with a larger number of students.

SP 013 640

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Phyllis Lerman Woloshin

A MAJOR APPLIED RESEARCH PROJECT
PRESENTED TO NOVA UNIVERSITY IN PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF EDUCATION

NOVA UNIVERSITY

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# CHAPTER I

# INTRODUCTION

## AN ANALYSIS OF STUDENT CHOICES IN MEDICAL ETHICAL DECISIONS

### Background and Significance

Dilemmas in decision making are the result of a rapidly advancing technology. In medicine particularly, technology has opened up the possibility of sustaining life on support systems even though the life of the person may be essentially vegetative. Where once genetic deficiencies in new borns determined an early death, today those children can live to reproductive age. The notion of the survival of the most fit has been reversed to the possible detriment of humanity itself. Much research, in fact, is devoted to the sustenance of the lives of the biologically unfit.

The advancement of technological skills is so rapid that students spend their college time learning facts and techniques. The study of decision making (ethics), while interesting and probably helpful in this age of uncertainty about values, is not actively pursued. Philosophers have only recently begun to develop "applied ethics," a study of practical ethics. Professions and vocations concentrate on legal issues when they discuss ethics with their students. Yet training in ethical theory is purportedly useful in assisting students to better understand the nature of decision making and to help them become more aware and considerate in their responses to value laden issues.

How would students respond to ethical dilemmas in their decision making? Which issues surface as dilemmas? This research sought to gain information regarding the attitudinal positions of students enrolled in courses designed to confront ethical decision making.

During the course of this project, an instrument in the form of a questionnaire was refined. It was hoped that the instrument would provide information about the attitudes of individuals toward decision making in the area of health care delivery systems. The instrument took the form of case studies which presented dilemmas in health care delivery. These dilemmas and the respective solutions selected by those answering the questionnaire served as an indication of the paternalistic and/or individualistic value systems held within the context of general ethical norms.

The questionnaire was administered to students in twelve colleges and universities in serveral states using a pre-test, post-test format. Those students who participated in the study were enrolled in medical ethics courses in their respective colleges. Students were drawn from different curricula, age groupings, religious groups, marital circumstances and health professional association and/or experience. Several community colleges participated in this study: Queensborough Community College, Cayuga Community College, Oakdale Community College, Oakton Community College, Harper College, Parkland College, Mountain View College, Rhode Island Community College. These Colleges represent Illinois, New York, Texas, and Rhode Island. Four year colleges were Wheaton,

Massachusetts; Bradley University, Illinois; Johns Hopkins University, Maryland; Texas A & M Medical School, Texas; and Dowling College in New York participated in the study. All but three of the schools above mentioned participated in the post-testing as well.

The purpose of this project was to determine what the attitudinal preferences of students registered in Medical Ethics courses was. To date, there are no data indicating whether or not people do, in fact, differ in their opinions on ethical decisions in the bio-medical area. Social Scientists have tried to develop indications of attitudes, but the results are not clear, treatment of those results are not clear, and the studies have centered around students in highly selective liberal arts colleges (Phillips and Nicolayev).

There was also no information concerning the possibility of attitudinal shifts during the course of study. There is no data on how many Medical Ethics courses exist across the country or how many students are enrolled in them.

To add to the difficulty of collecting data from students enrolled in Medical Ethics courses, there is no empirical evidence of the shifting of attitudes in decision making other than on a developmental schema (Kohlberg, Perry). Therefore, this project developed a questionnaire which would assist instructors heuristically in the teaching of bio-medical ethics; to serve as a base for discussion in class; and to foster and implement personal ethical norms in general decision making which were compatible with those choices, that is - consistent.

Consistency is regarded as the hallmark of rational, deliberate thought (Appendix F, Stage 6). If a greater degree of normative understanding was exhibited by students through the recognition of general ethical norms incorporated in specific, dissimilar cases, then it could be said that students were responding to issues in a rational, mature manner. However, evidence of this understanding cannot be demonstrated through empirical data collected in this study through pre- post-tests. The survey instrument does not provide such analysis since it does not address the reasoning process itself. Such instruments do not provide data concerning the developmental, maturational process (Perry). Consistency was therefore addressed in this study pedagogically by grouping various questions within general dimensions or norms (Appendix D).

Statistical treament of the movement of students within the pre-post-test period was by percentage within each group of respondents. Descriptive treatment of statistical information included analysis of responses of students by age, sex, curriculum, religious preference, and experience with health care. A causal relationship between the course and shift in selection of alternatives was not presumed as part of this study. However, if students were found to be more similar in responses to questions pedagogically clustered on the post-test, then instructors could have some support for their contention that intellectual growth is fostered through philosophical inquiry.

History of the Study

Oakton Community College is a comprehensive community college in

Morton Grove, Illinois. The college offers a full range of courses in both baccalaureate and vocational-technological education. Most students see a value or need for training in ethical decision making (Muller, Dunham). Many educators are concerned over the lack of liberal arts training in the vocational-technological curriculum (Silberman, Cross, Dunham). Rapid advancement in technology has created a gap between institutional sanctions (ethical norms) and scientific possibilities (Illich, Toffler), leaving the individual decision maker bereft of systematic, institutional guidelines.

In fall, 1977, a course entitled "Medical Ethics" was instituted as part of the philosophy offerings at Oakton Community College. Students were given a survey to answer during the first week of the semester (Appendix A). The survey was developed in order to stimulate discussion of ethical questions which arise in health-care delivery systems. At that time, this researcher developed the survey from various case studies given in the literature of medical ethics. It was developed to stimulate discussion of ethical positions. Most students were interested in how others in their class answered the various questions. The discussion, prompted by the questionnaire, led to the development and study of classical ethical theories which, in turn, were found by students to be helpful in developing personal norms for decision making. This process and analysis is the ultimate goal for the study of ethical theory. No attempt was made at that time to administer the same or similar questionnaire at the end of the semester. No structure was developed at that time for determining consistency in responses.

Since one course section in medical ethics is offered at Oakton Community College, and since there are many health allied fields in the vocational programs at Oakton, instructors and students began to request the services of the "Philosopher in Residence" - a philosopher on the faculty at Oakton, to guest lecture in such courses as Physical Therapy, Marketing and Business. These guest lectures were instituted as an interface between applied and theoretical studies. The arena for discussion of ethical problems within the context of the host class's own field of interest (Woloshin). The allied health programs asked for a discussion of the questionnaire. Again, students and instructors were interested in a comparison of their answers with others.

Contact with instructors of philosophy and instructors of vocational programs outside Oakton indicated an interest in the use of the survey as a teaching instrument. Requests for statistical summaries of student response selection were also made. The instrument was administered in (1977) to one hundred fifty students and analyzed on the basis of curriculum, sex and age using the Statistical Package for the Social Sciences for data analysis. Results of this analysis proved interesting and to instructors (Appendix B). Curriculum was not found to be as decisive a factor in selection of response as was indicated by the available literature (Dunham, Cross).

The initial instrument accomplished the objective of opening up discussion on issues involving ethical dilemmas. Students pointed out the difficulties of several questions which seemed ambiguous to them. When the data was analyzed, those cases and choice selection on which

consensus occurred were disgarded as being non-controversial. Where little or no agreement occurred in choice selection, an ethical dilemma seemed to be presented.

No post-testing was done during the 1977 study. There was no information on whether or not students had altered their positions after experiencing an ethics course. No information regarding marital status or experience with illness had been gathered, and no analysis for consistency within the construct was contemplated.

After the first year of offering the medical ethics course at Oakton, several incidents indicating a need for further refinement and study occurred:

1. The Association of Medical Assistants made a request to have the instrument administered and discussed at their biannual meeting in Chicago.

2. The Illinois branch of the National Endowment for the Humanities began supporting dialogues between academics and the general public through grants. Since there were few 'experts' available to discuss the linkage between the humanities and the sciences in the medical ethical arena, this researcher was called upon to discuss the findings of the first instrument in a public forum partially funded by the Illinois Humanities Council. The researcher was also asked to participate in the development and formulation of forums through which medical ethical issues would be discussed. These forums would be sponsored by various colleges in the state of Illinois. A grant proposal was drawn up to fund further research and development of the survey instrument. At this

writing, the proposal for funds is being considered by the Illinois Council.

3. Various professional philosophers' groups, including the Illinois Association of Philosophy Teachers, the Two-Year Committee on Teaching Philosophy of the American Philosophical Association, the National Association of Teachers of Philosophy, and the Committee on Philosophy and Medicine expressed the desire (and need) for considered dialogue on the (a) linkages between Humanities and the Sciences; (b) research on decision-making which philosophers could understand; (c) methods by which the linkages could be fruitful for both the Sciences and the Humanities. This type of research involved the need for intellectual rationale for keeping dialogue mutual among various academic endeavors. Such research would necessarily entail the study of the structure and purposes of curricula which either include or exclude humanities studies in the sciences; a study of the development of ethical and intellectual maturity by which individuals learn to make decisions; an understanding of the role both implicit and explicit values play in decision making; and an apologia for inclusion of philosophical studies, especially applied ethics, in various curricula in order to develop critical thinking skills.

4. The consumer movement spearheaded by Ralph Nader's organization in Washington, D.C., and by frequent publication of medical dilemmas and abuses in both the professional and public sector, and the women's health organization of the National Women's Health Network in Washington, D.C., began to call attention to and "Monitor activities of federal agen-

cies such as the Department of Health, Education and Welfare, including the Food and Drug Administration and the National Institutes of Health." The Equal Rights Amendment, and the Women's movement gave impetus to the need to discuss medical practise as being a closed system which needed investigation and analysis. The public in general desired to know more about practises in decision making. Professional organizations, such as the De Paul University Women's Law Caucus,sponsored meetings at which information regarding paternalistic practises in medicine toward women was distributed.

5. Moral and legal issues regarding the nature of death began appearing in daily newspapers as a result of the Karen Ann Quinlan case. Previously, issues of abortion had stimulated controversy, but the use of the drug, thalidomide, and its grievous effects on the unborn, along with the development of the procedure called "amniocentesis" brought the abortion issue into much sharper focus for the general public. Philosophers, scientists and lawyers were brought together to formulate the "Harvard Statement" on the determination of death. The possibility of monitoring active brain waves and successful transplantation of organs made the deliberations in decision making part of the public interest. It is difficult to realize that the transplantation procedure is only about ten years old. Previously, decisions about determination of death were regulated by the private sector of the closed system of the physicians profession or to nature itself. Because of the stimulated public interest, sixteen state legislatures have passed down legislation determining the meaning of death to be brain death rather than only biological

death.

6. An announcement of the development of an instrument to assess attitudes and consistency in decision making was printed in the bulletin of the Committee on Philosophy and Medicine. During the week following that announcement, sixteen requests for information, data, and usage of the instrument was received. Of those, twelve requests were from medical school faculties - one in Ireland. This response indicated that those involved in Medical Schools were interested in not only instruments with which to stimulate discussion of pertinent ethical issues in medicine, and guidelines by which to judge consistency of responses, but also in objective data to support the need for critical thinking skills in decision making. The need for dissemination of skills and information in decision making is exemplified also by a request for a personal appearance, by the researcher, to present the data and findings of this study at the University of Toledo Medical School.

These incidents provided a background for the development and refinement of the instrument projected in this study, and for research into the processes involved in decision making itself. Although the instrument could provide stimulation for discussion of medical ethical issues, the nature of decision making, the processes of intellectual and moral development and the need to pursue a rationale for inclusion of philosophical studies in professional and/or vocational curricula was made manifest by the above.

Research Questions

The research questions pursued in this study were: Do students

recognize general ethical positions when particulars differ before and after having had a course in ethics? Do students become less definite in their choices of alternatives? Does there seem to be any indication of moral or intellectual growth exhibited in the answer selection? Are there any significant differences in choices of answers of students in different age brackets, curricula, geographic locations, two or four year schools, or religious preferences?

## Hypotheses

The hypotheses tested by this study were:

Null Hypothesis One: There will be no significant difference among groups in the responses of students by demographic factors such as age, sex, marital status, religious preference, experience with health care, curriculum or college.

Alternative Hypothesis One: There will be significant differences among groups in responses of students by demographic factors such as age, sex, marital status, religious preference, experience with health care, curriculum or college.

Null Hypothesis Two: There will be no significant difference in groups of respondents' answers between the pre-test and the post-test.

Alternative Hypothesis Two: There will be significant differences in groups of respondents' answers between the pre-test and post-test.

## Definition of Terms

The following terms will be used throughout this paper:

Values: a set of beliefs one holds about himself in relation to his social and physical environment which provides the basis for judgement in decision making. These beliefs generally represent a pattern by which behaviors are predictable (Raths, et al.). This definition of values differs from the traditional philosophical definition of values which divides values into two types: intrinsic and extrinsic values. Instrinsic values are the worth of a thing, or goods, which are held good in and of themselves such as, justice, truth, beauty, happiness, reason. Extrinsic values are goods which are held to be of worth because of other goods which they can accomplish, e.g., practising the piano in order to play well, health, in order to live well, etc.

Values Clarification: the process by which various exercises are performed in order to become more aware of the values on holds and by which one makes decisions. Generally, these activities attempt to make the student aware of the particular set of standards or values he or she holds.

Normative Ethics: a standard or set of standards by which behavior is judged praiseworthy or blameworthy. Ethical norms preclude the possibility of universal standards by which to judge actions.

Metaethics: the logical status of the moral claims themselves. Both methaethical processes and normative ethics are embodied in classical ethical theory and are the substance of the formal study of ethics. Statements about the good, how man ought to behave, and the good life are general ethical theory considera-

tions. Metaethical statements are of the nature of the reasonableness of the normative ethical claim.

Relativism: in ethical theory, the claim is made that diversities in values and ethics are fundamental. That is, disagreements concerning values and norms emerge because of cultural diversity which suggests there are no cross-cultural "goods" which are held to be universal. In Perry's work this term is used to indicate diversity within the structure; he uses instead, the term multiplicity to mean what is here meant by relativism.

Biomedical: biology, technology and pharmacology have advanced to a stage where there are linkages between the three specializations. Considerations which involve the combination of any of these three is called biomedicine. Biomedical ethics deals with the problems of abortion, euthanasia, sterilization, experimentation on humans, allocation of scarce medical resources, physician and health personnel training, etc.

Paternalism: an attitude of authority which is held for the benefit of the subject and through which autonomy of the individual is subverted.

Autonomy: self-reliance in decision making. The ability to see and choose among various alternatives through one's own deliberation.

Hegemony: belief in leadership, or the power of the state over others.

Assumptions

It was assumed throughout this study that interface between sciences and humanities is a vital link in the retention of freedom for society. It was also assumed that ignorance is a major contributing factor to lack of freedom and that the advancement of highly specialized knowledge prohibits access to that interface.

It was also assumed that it would be possible to assess the relationship of responses given on the survey instrument by comparing similar concrete cases with one another and by comparing dissimilar concrete cases addressing the same general issue. This comparison, however would not be empirical but rather conceptual. It was understood that this method of comparison would not provide hard data but that whatever information could be gotten would be interesting and informative.

Another assumption made was that the instrument was free of ambiguity and did, in fact, address issues of paternalism, authoritarianism utilitarianism and autonomy.

Limitations of the Study

1. The survey was originally designed for discussion purposes with students who had little or no knowledge of medical terminology. The language and choices provided may therefore not have been optimum for gaining the type of information desired. It may, however, not have been possible to construct such an instrument free of bias, or adequate to the task of assessing attitudes.

2. The sample used in the study was a representative sample due

to the relatively small size of the population taking medical ethics courses. In some cases, an entire class consisted of only 9 students. Attrition in the classes also contributed to the small sample in the post-tests.

3. The primary participation in the study was of students in two year, non-residential colleges. Although several four year colleges participated, there was some attempt to distinguish the differences in responses among students in residential versus non-residential schools. In this case, the residential schools were only four year colleges.

4. Distinctions between vocational/professional curricula were viewed differently by two and four year college students. That is, pre-medical students, at Johns Hopkins University regarded themselves as liberal arts students (as noted by many in the margins of the instrument). For purposes of this study, however, those students that noted this distinction were included in the vocational curriculum.

5. Distinctions of religious preference in the choice of "other" were noted in the survey, that is, some students (particularly from the southern schools) checked "other" and wrote in "Baptist" or "Episcopalean" rather than "Protestant." The choice also indicated there was ambiguity in the term "other" for those who were agnostic, or for those who were "Buddhists." The information based on religious preferences may therefore be limited.

6. Students were not selected on the basis of number of years of previous education. Students beginning their college work as well as those who have changed majors and/or are continuing in adult education

make up the sample. The developmental stage of moral and intellectual maturity may be reflected in responses but cannot be detected through this study as a result of ethical training within the context of the period of this project.

7. To date, no commonly used criteria for the assessment of ethical value systems exist. One instrument (Rokeach) exists to determine the attitudes of nursing students which is not applicable to liberal arts or business students because of the technical language used. Therefore, face validation of the instrument had to be made by professional philosophers involved in the teaching of ethics.

8. There exists no instrument to assess the effect of consumerism on changing societal attitudes. Therefore, there is yet no way to assess the relationship of growing awareness of consumers' rights as individuals on the subsequent decisions. Indications of this awareness, however, may be reflected in the responses of older students in the trial instruments' results.

9. Limitations of the study may be enhanced by the time span of two and one-half months which this study covered. That is, the survey was given to a group of students during one quarter or one semester. More conclusive results may be gathered if the study were to be continued over a period of several semesters.

10. No causal relationship between taking the ethics courses and attitudinal changes has been presumed. Changes made during the course of the study may reflect other variables not measurable by objective standards using surveys (Perry). Results may reflect intellectual and

moral maturity (or immaturity) along a developmental, rather than instructional scheme.

11. Instructional methods used by various teachers and texts used in the courses were not controlled by this study. In researching the literature on the psychology of learning, these factors, rather than the study of ethics may have been more influential in the student's choices than the course of study itself.

12. Recognizing general principles within the concrete case studies requires a relatively high level of reasoning skills. Failure to note the similarities between cases and general principles may have been due to the stage of intellectual maturity rather than to instruction.

## CHAPTER II

## REVIEW OF THE RELATED LITERATURE

Research of the literature entailed not only investigation into the process of decision making in students taking ethics courses, but also into an investigation of the basic questions of education and freedom. The context in which the outcomes of decision making were considered was thus broadened into five areas: (1) the purposes of education in a free society; (2) the nature of specialization in professional/vocational education; (3) the nature of the philsophical endeavor in education; (4) linkages between scientific and humanities education for the benefit of society; and (5) developmental psychology, educational psychology and their contributions to understanding intellectual and moral maturity.

### (1) The Purposes of Education in a Free Society

Educators are cognizant of the need for society to question its basic tenets in order to promote the freedom of individuals in that society. Jefferson, schooled in classical thought, believed that liberal education was a social force which fitted man into society. His letter to George Washington indicated his commitment to that ideal.

> It is an axiom in my mind that our liberty can never be safe but in the hands of the people themselves, and that too, of the people with a certain degree of instruction (Honeywell, p.13).

Around 1850 radical social reconstructionism tried to create the idea of the common school in order to reconstruct the social order (Karier, p.51). Universities were left to the gentlemen while land

grant colleges were created to enchance vocational education. Higher education began to be viewed as the stepping stone to higher economic and social status. Indeed, the same holds true today. Most students today regard higher education as the pass-key to better jobs and higher social status. The concept of "liberal" education for the free, or liberated man as a thinking, participating social creature rather than as a commodity or producer of goods became sublimated.

> Whatever the original purpose of schooling was, whether it was to transform Irish shepherds into clerics, as Goodman claims, or to prepare men to participate in a democracy, as Jefferson argued, schools have evolved into institutions that destroy much of what is wholesome in man...obviously, the schools are a long way from where they started and a long way from achieving the humanistic ideals of freedom, equality and justice that they were created to support (Friere, p.3).

The evolution of the educational institutions Friere is referring to was stimulated by three, separate, converging forces: (1) the concept of the division between the learned and the laboring, (2) the German Ph.D. program, and (3) governmental influences in the academic advancement of technology and the resultant specialization of knowledge.

The concept of the division between the learned and the laboring can be found in Plato's Republic, up through Jefferson's writings on education:

> To the school of technical philosophy will come the mariner, the carpenter...optician, metallurgist, druggists, brewers...soap maker, glass maker, to learn as much as shall be necessary to pursue their art understandingly...(it) will differ essentially in its functions from other professional schools... the technical school is to abridge those which were taught there too much extenso for the limited wants

> of the artificer or practical man. These artificers must be grouped together, according to the particular branch of science in which they need elementary and practical instruction...lectures should be given in the evening, so as not to interrupt the labors of the day (Janero, Gearhart, p.5).

The division of the learned and the laboring within the societal and college framework created divisions among academics themselves. There were "cow colleges" and universities. American universities molded themselves after the German Ph.D. (Ashby), "which prescribed that the doctoral dissertation should be a contribution to knowledge. Students doing research in the sciences could expect to make such a contribution, but in the humanities only the most brilliant could hope to do so" (Muller, p.227). Students began to specialize more and more in their research neglecting training in the liberal studies.

Institutions constructed a "world (which) is completely blocked off from view by a row of inclosures, with such further labels as CHEMISTRY, BIOLOGY, PSYCHOLOGY, ECONOMICS, SOCIOLOGY" (Fisch, p.144). Departments vied for favor through governmental research grants. This stimulated even further through the race for space after Sputnik. The compartmentalization of studies created compartmentalized students.

> ...nowhere in high school or college, are students given a basic training in how to read sensitively and intelligently...while they are indoctrinated in the values of their own specialty they are not trained to think about the basic problems of values in the light of both the humanities and the sciences...the considerably larger number of students, especially in the technical schools, who have serious vocational interests (are more troublesome)...Typically the vocationalists tend to resent the courses their deans require of them for the sake of some liberal education; they regard the humanities as something to be got rid of as quickly and as easily as possible, so that they may get on with their

> specialty. Content to be 'one dimensional men' they are otherwise satisfied with their education (Muller, p. 225).

With all the accessibility of knowledge, what have educators learned? Literature warns us about the "Unknown Citizens" (Auden), the"Babbitts"(Lewis), the "Roobs" (Price), and the "Yahoos" (Swift). These men are products of societies which fostered unquestioning acceptance of commonly held societal values. Unless questioning of basic attitudes is continuous, the society which promotes or enforces unconscious conformity is a dead one.

So serious has this problem become, the Harvard Committee on Education addressed it in 1971:

> ...There is a danger of neglecting the basic question: Education for what purposes? A legitimate part of the educational function is to accomodate the needs of many students to learn to play a constructive role within the current social structure. But often the search for the truth also requires both him and his teacher to question the same social structure. The function of the university community in educating the young for vocations useful to society must be kept in constant tension with its role in providing a forum for social and moral criticism.

The specialist cries out -

> What scholar, except perhaps an authority on the manufacture of Japanese swords in the sixteenth century, can really keep abreast of the literature in his field?... there simply isn't time to pass one's eyes along the miles of letters and figures required, much less to absorb and make sense of them (Watts, pp. 192-3).

and so does the humanist -

> At present, when formal education swallows up so much time of life and pretends to be practical preparation for every activity, ideological processing is especially deadly. Those who succumb to it have no wits of their own left and are robots (Shields, Greer, pp. 24-5).

To be free implies the ability to choose between various alternatives. When alternatives are closed off there is no choice. One way of closing off alternatives is through ignorance. The role of education is to "educe" understanding of the existence of alternatives through asking basic questions. Accepting the need for educating students to vocations committed the either/or fallacy - it also closed off the tension which choice creates.

(2) The Nature of Specialization in Professional/Vocational Education

Although medical education is used as the prototype in the following, the general ideas expressed can be applied to other types of specialized training such as business, law, nursing, etc.

As society changes, so must its institutions change (Gardner, p. xiv; Dewey, p. 91). Institutions are the broad base on which the stability of society is built. As Carl Becker said in Progress and Power

> Until recently the chief function of the sophisticated, the priests and scribes, has been to stabilize custom and validate social authority by perpetuating the tradition and interpreting it in a manner conformable to the understanding of common man. During the past three hundred years...there has emerged a new class of learned men, successors to the priests and scribes, whose function is to increase rather than to preserve knowledge, to undermine rather than to stailize custom and social authority.

We are forever "building the church and killing the creed...Once we had wooden chalices and golden priests; now we have golden chalices and woodem priests" (Emerson, p.229). The golden chalice of today is the advancement of technology through specialized training. The wooden priests are creatures of an elitist tradition venerated by an ignorant public.

The educational background of those who attend professional schools is itself dehumanizing.

> ...the "medical mystique"...feeds on a system that makes young people suffer and sacrifice to enter its highest rank, at each step becoming more convinced that if they make it to the top, they sure as hell will be gods. It is a system wherein thousands of concerned, intelligent Americans, allow information about their health, their lives, their bodies to be kept from them or dispensed only in little bits at the discretion of their doctors (Galton, p.5).

The "mystique" is circular - that is, the doctors who teach the medical students are authoritarian and autocratic. The younger doctors respond to their role models and the public - ignorant of the specialized training -reveres it to the extent of maintaining its own ignorance.

> (The patients) may be told things by their physicians that they don't understand and fail to ask for clarification. Some don't want to appear stupid; some aware of a waiting room full of patients, don't want to take up the physician's time; some fear they may seem to be questioning the physician's judgement. As a result, they go home confused - and often needlessly worried and anxious (Galton, p.3).

Then, there are specialities within specialties which separates even further the concept of a "human being at <u>both</u> ends of the stethoscope" (Barton, p.131).

> The family doctor, with his concern for the individual patient has all but disappeared. The tradition of the art of medicine has been replaced by the 'science of medicine' with its trend toward specialization. Dr. Karen Davis, chief planner at HEW, recently noted that sixty percent of all doctors are now being trained as specialists while only twenty percent of patient visits require a specialist's care (Boyle, Morriss, p.2).

Perhaps the effect of this "super-specialization" has begun to spin itself out. Questioning of the system and of the role modelers is

beginning to be done.

> (Medical students) assert that we, their elders, who should be their models and their guides have failed them. In our practise we are characterized as inconsiderate, unresponsive to community and social needs, indifferent to the poor and the outcast, too concerned with money, prestige and comfort. And this, it is concluded, is the consequence of an education which has exalted all the wrong values - authoritarianism, ridgidity, excessive respect for the intellectual, and underrecognition of the creative, the human and the intuitive (Pelligrino, p. 1349).

Not only are the basic purposes of education being reexamined, so too are the basic purpose of the scientific endeavor being questioned.

> Scientific inquiry is a social enterprise supported and conducted at the pleasure of the public whom it ultimately serves. Yet, like medicine, it is practised by a professional elite whose judgements are based on considerations that are professionally obscure in many ways to the public at large. Thus, we find, in grappling with questions pertaining to public regulation and public accountability in regard to scientific research, that we must confront traditional questions concerning the proper scope of democratic processes and the prudence of establishing and supporting social institutions that invest power in elite groups charged to act in the interest of a comparatively benighted public (Gorovitz, p.9).

The effect of technological advances on the scientific community has created dilemmas in decision making. Where once a person was declared dead when the heart, lungs, and kidneys failed, we now have the means to stimulate the functioning of the biological apparatus while the brain may be dead. At what point, then, is a person dead? Biological death precludes the use of those organs for transplantation. A rethinking on the nature of death redefined death as the cessation of brain function. To date, sixteeen states have passed on brain death as a criterion for death.

Questions concerning the quality of life were also important considerations for the recipeints of technological training.

> Formerly, the loss of such (deformed, congenitally weak) children were accepted as nature's irreducible waste... Should we preserve life against nature's apparent intentions simply because we have the gadgetry that allows us to do so? (Zeulzer, p. 32).

The result of training which emphasized technological, rather than humanistic education produced a society of students whose characteristics have been studied by many researchers. Ladd and Lipset explain in the Divided Academy that the University had become a Multiversity, where knowledge pursued in each facet of the institution is separate and distinct. The students at different types of institutions differ from one another in marked ways:

> Senior college students seem somewhat more likely to express an interest in humanitarian concerns, whereas Junior college students seem to be somewhat concerned about business and financial matters.
> In general, Junior college students are more conventional, less attracted to reflective though and less tolerant than their peers at four year institutions, (Medzker, 1967). Tillery (1963) found that the greatest differences between students selecting Junior college and those choosing state universities occurred on the Omnibus Personality Inventory Scales measuring autonomy and authoritarianism (p.32).

A study done by Dunham indicated that:

> Students in applied programs - elementary teaching, engineering, business, nursing, home economics, -- are not so likely to break out of the traditional mold or challenge authority (p.86).

Where authority and authoritarianism are concerned, there may be difficulty in assessing the contrast between it and humanism. Cross and Brawer's studies contrast authoritarianism with humanitarianism, how-

ever, when trying to reflect the polarity of these positions, if paternalism is used as "the interference with a person's liberty of action justified by reasons referring exclusively to the welfare, good, happiness, needs, interests or values of the person being coerced" (Dworkin, p.65) and is equated with authoritarianism, then the polarity is not so clear. Humanitarian interests may be reflected in authoritarian behaviors. For example, when the courts deny the right of a parent to refuse a newborn a blood-transfusion which will save its life on the basis of religious freedom, while the court may be acting in an authoritarian manner in regard to the parental rights of decision making, the court may also be acting in a humanitarian manner by preserving the right of the infant to life. In addition to the problem of defining authoritarianism, there is the problem of the consequences of the scientific application of knowledge which may result in "unintended side effects" such as the Thalidomide and DES tragedies.

The problem of role modeling in a specialized, technological atmosphere and authority are also intimately intertwined. Students respect the accumulated knowledge of their field of study and of their professors. The general public venerates that knowledge to the detriment of its own freedom, and technological advancement, as if <u>it</u> were responsible for its own encroachments on freedom, is blamed for the unrest.

> But the truth is that workers in the grimmest moments of modern industrialism were no more miserable than, let us say, the Egyptian slaves who built the pyramids. It is not advanced technology that causes the trouble. The root of the difficulty is an attitude of mind that has never really died out in the world, nor perhaps even diminished greatly since the days of the Pharoahs - a willingness to sacrifice human values to other objectives(Gardner, p.57).

Respect for authority and authoritarianism can be seen in our society from the university professor down through the uneducated citizen. The "invisible forces" (Silberman) or "silent languages" or "hidden curricula" are the paedia which have molded professional/vocational education into a rigid and authoritarian system. As Kohlberg and Perry suggest, perhaps this respect for authority is the result of an arrested moral and intellectual development. More and more medical schools, however, are including departments of humanities; questions concerning the accuracy of Medical College Admissions Tests (MCAT) in measuring the quality of the students are beginning to be asked (Chronicle of Higher Education, August 7, 1977); and awareness of the polarizing, dehumanizing effect of exclusively specialized training is now surfacing (Zuger).

(3) The Nature of the Philosophical Endeavor in Education

The study of philosophy was born in an age of mystery and superstition; in a time when men read the entrails of pigeons in order to decide whether or not it was an auspicious time to fight a battle; when children with blemishes were put out to die from exposure; when breech deliveries of babies were portends of evil. The philosopher was a practical man in that he looked at the world around him to see if it was explicable. Indeed, the father of philosophy was said to have made a killing on the grape harvests because of his ability to predict rainfalls. It was this same Thales who was the first to predict a solar eclipse which indicated that natural events were not the capricious occurrences once thought controlled by equally capricious gods.

The history of philosophy is rife with examples of practical men thinking practical thoughts. Socrates, considered a ne'er do well by his contemporaries, met with the citizens in the agora to discuss justice, beauty, love and immortality. He is the prime example of meeting with others to discuss the burning issues of a community which had seen better days. Bacon, a government official, was concerned about the impossibility of advancing knowledge because the schools of his day were saddled with Aristotelean dogma. Descartes, a mathematician, was disillusioned with the authority of the church. Maimonides, a physician, was concerned with coordinating religious and scientific dicta. Spinoza, a lens grinder, was excommunicated from his religious community because he conceived of a non-anthropomorphic god which was universally pervasive. Marx, an embittered, expatriated writer, fought against the economic inequities of his time. None of these men held chairs of philosophy at great universities. None of these men were academics talking to other academics about esoteric topics reserved only for gentlemen. Socrates did not walk into the market place and come upon a group of discussants on Monday, Wednesday and Friday with a plan to discuss metaphysics from 9:30 to 10:30 and switch the discussion to Logic until noon (Pecorino, 1978). His method was to enter the conversation at the point of interest for those doing the discussing.

During the latter part of the 19th century and during the 20th century, philosophy became an academic specialty to be discussed, analyzed, and developed by and for philosophers themselves (Fisch). Philosophers then tended to deal with the purely theoretical (never threatening

a theory with a fact) and philosophy became the plaything of the idle intelligent. In the past two decades philosophy took another turn; that is, questions of deep philosophical content surfaced with an urgency for solution dictated by the pace of our times. At one time epistemologists talked about the certainty of knowledge, that is how do we know what we know? Many would consider such ruminations impractical (Aristophanes, Clouds). In the 20th century, however, theoretical thinking of this type gained the Nobel Prize in Physics to Werner Heisenberg for his "Principle of Uncertainty." The division between the applied and theoretical (learned and laboring) is not as clear as one might suspect.

The Watergate incident laid bare the lack of cohesion in our society between morality, social obligation and social value constructs. Educators began to realize the need to include part of the classical investigation of Philosophy, known as Ethics, into the curriculum. This inclusion, however, became a new specialty - Values Clarification. There was also a move to include in the curricula of vocational/professionals courses on death and dying (thanatology) in order for students, who have been removed from the natural cycle of life and death, to consider that cycle as part of their own lives. Although much has been said to devalue the inclusion of such studies - mainly charges which state that philosophers have become opportunists in an otherwise declining market (Hobbs), - indeed, philosophers are doing just what they have always done, that is brought themselves and their skills to the market place. This movement is, contrary to popular opinion, a time honored, precedented activity.

Any book store's shelves display a plethora of "How to" books on

Values Clarification - along with strategies and techniques to be employed in the classroom. Primary and secondary schools are engaged in this most popular teaching strategy of our time (Delattre and Bennett). The technique has at its base a rather Freudian concept - that is, once the student is aware of the values he or she holds - something important happens. What one does with that insight after the initial introspection and discovery is left open to speculation. The discovery alone of deeply held attitudes and values is not enough (Muson). The student is left with values reflecting the illumination of consciousness - so what? The position enjoyed by the group of educators using this technique is so relative that discussion and justification of positions held is excused away with statements, "That's your opinion or value structure, not mine." This method of investigating values leaves the person with an exposed value structure and no method by which to analyze or solidify or systematize his diverse belief system into a coherant, workable whole. Kohlberg has expressed discomfort with the concept of values clarification as an end product of the educational endeavor (1972). Perry indicates that this multiplistic attitude may be developmental, but it is by no means the top end of the scheme. To introduce and foster values clarification without the careful, systematic scrutiny of normative ethics leaves those exposed to the clarification process in a stage of relativism in which the fool's or maniac's value is as valid as the sage's.

Ethical considerations necessarily imply the "oughtness" of an action. Oughtness implies whether or not the action should be taken. It considers the implications of that action applied universally to like

situations and evaluates the possible outcomes of consequences to that action. Oughtness is the realm of ethical activity - of decision making. This is also the operating theatre of the moral philosopher. When the actions of Watergate participants were made public, it was the lawyers, the political scientists, who analyzed the action according to the constitution. It is the role of the philosopher to make the action explicitly understood as immoral for rational reasons (Coles).

Given the role of the philosopher in the educational and social network; given the training of students in vocations and professions; given the decline of interest in liberal arts studies; given the advancement of technology; given the growth of values clarification strategies in the classrooms; given the lack (yet need) for asking basic questions of our activities; given the outcrop of courses which address these questions and the lack of training in clarifying general ethical principles rather than relative values, there seems to be a growing need for departments of specialization to complement rather than to compete with each other.

> The student should discover and recognize his convictions, desires, goals and values within the context of real life possibilities. Customarily, the student is expected to become acquainted with cultural diversity and to a certain extent begin to develop those competencies essential to understanding and living in a pluralistic society. This set of experiences and opportunities should be designed to instill in all students a respect for civilized society, a democratic way of life, and a humane existence (Waller, p.49).

(4) Linkages Between Scientific and Humanities Education for the Benefit of Society

Science has been held to be the pursuit of truth, while its applica-

tion can be either moral, immoral or amoral. Science itself does not carry with it ethical dimensions, but scientists do (Bronowski).

> The fact is, as well intentioned as physicians may be, they are subject to the same biases, insecurities, guilts and fears as the rest of us. The modern medical approach to this is to make the young physicians aware of their biases so that even if they can't shake them off, they know where they come from...Their recognition that they may look very pessimistically at a baby whose mother is 15 years old without a partner, and a streetwanderer, that's going to have a big effect on their desire to push with treatment (Johnsen, p.34).

Although those trained in the sciences generally hold that their studies are ethically neutral, that science is value free, the fact is that this is humanly impossible.

> The notion that (scientific) neutrality can be extended to all life is an absurdity. Those who share in the notion have never succeeded in acting in their personal lives as though they were wholly agnostic with respect to values (Gardner, p. 119).

When Socrates asks in the Republic of the function of the physician, he is concerned with the application of an art for the benefit of the subject. Today the philosopher must also be concerned with the application of the art of reasoning on those who require its ministrations. Students involved in vocational studies have need of the investigation and analysis of purpose. When the physical therapy student is confronted with a dying patient, from whom does that student obtain the skill to ask and then answer the question, "What for?" Some instructors of physical therapy, biology, anatomy, etc., indicate that it is not their function to address such questions. To do so, they say, would be considered professionally incorrect. When medical students are confronted with the dying elderly, to what end will corrective surgery enhance that life?

The question "What for?" although not articulated, is still there. Thus, courses in ethics appear to address the ultimate concerns of all of us. They are the natural processes of philosophical reflection.

> We want to lead the good life. We want the good state as a means to that life. Once more, to find the good life and the good state we must inquire into the nature of man and the ends of life. Once we do that we are metaphysicians in spite of ourselves (Hutchins, p.24).

For example - when one teaches a medical ethics course, what does the instructor hope to convey to the student? What ought the student to come away with? What direction should the course hope to take? At the outset the course in medical ethics discusses issues of law and morality with special emphsis on the biomedical arena. If such courses were to limit their scope, they would be courses in law (involving medical problems) or history (involving the development of specific issues in medicine) but they are neither - they are courses in Ethics. The people teaching these courses have training which is limited to the specialty of either law, history or medicine. Ralph Linton once said, "The last creature to ever discover water would be the fish, precisely because he is always submerged in it." A brief summary of college catalogues in nursing or medical ethics will prove the point. Emphasis in many of these courses, taught by members of the nursing or medical faculty is on law - more specifically - medical malpractise. The ethical problems can be trivialized. One physician stated that his training in ethics during medical school involved the issue of whether or not it was moral to leave his golf foursome in order to attend a patient!

The pressure for acquiring as many facts as possible in one's training is enormous. The explosion of information has forced theoretical studies to be either minimal or non-existant. For example, a prospective nurse enters a nursing program presumably because she or he cares for others and has an ability to be nurturing and sympathetic to human needs. During that nurse's schooling, those specific abilities are not pressed into evaluation. She or he is exposed instead to courses in biology, chemistry, anatomy, etc. The human element is not taught in the student's early courses. Not until the student (nursing, therapy, teaching, medical, etc.) is in the later years of training is there personal contact with the object of the course of study. Usually human issues aside from physical health are not addressed during the classroom hours. Time in the classroom is at a premium. Humanistic studies are sacrificed, not because they are unimportant, but because they do not add to the storehouse of technical knowledge the student must know if she or he is to pass licensing examinations.

Instructors themselves, trained in specialties, feel unable, or are unwilling to address issues of human concern (other than those which deal directly with the functioning of the body). For the most part, instructors themselves were trained within the narrow confines of a departmental structure. The various codes of medical ethics from Hippocrates, through Percival and the 20th century revisions of the American Medical Association's code of ethics reflect the demise of the liberally educated physician. With these revisions, the expectations of both the professional and the layperson were minimalized.

Various methods have been devised to combat polarities in education. At Oakton Community College, the institution of a "Philosopher-in-Residence" to guest lecture in various courses outside the field of philosophy met with success (Woloshin). Instructors remained in the classroom in order to question, and analyze various ethical issues presented. The Philosopher in Residence was actively sought out by those professionals in order to broaden their students' perspectives.

Medical Ethics courses in Community Colleges have been the most active course growth in philosophy offerings. Students registered in these courses are from diverse curricula. When they were asked if they would prefer having sections for specific majors, students said they enjoyed the interplay of different ideas, to compartmentalize the course kept them, in their view, isolated. This was one of the few opportunities they had during their education to engage in dialogue with different "types" of students. There is an inherent value in coming to grips with the reality of a multiplistic world. Students who cannot do so engage in various strategies to protect themselves from the unsettling realization of the diversity of the world (Perry). Educators can be of assistance in this growth process if they allow the diversity available in academic circumstances to be sampled by their students. An understanding of developmental psychology and learning theory would be optimum in the engagement of this exchange. Lack of understanding about the psychology of learning and the developmental processes of morality and intellect are primary contributors to academic polarity. Academic polarity, or exclusive specialization, has been

shown to be destructive of both society and those who make it up.

(5) Developmental Psychology, Educational Psychology and Their Contributions to Understanding Intellectual and Moral Maturity

It has been held that education promotes an individual's capacity for intelligent consideration of problems, for growth toward autonomy, and for intellectual maturity. Kohlberg, following Piaget's model of development indicated there is a model for moral development which can be discerned (Appendix F). Perry indicated in his studies that the model of development continues through the college years (Appendix G). Passage from one stage to another can be arrested at any time. The causes of the arrested development are not clear. The causes for continuation of growth intellectually and morally are also not clear (Muson). Kohlberg's study indicates that moral maturity may be related to chronological maturity. Perry's study, however, indicates that questioning of one's self during the college experience may enhance this growth.

Cohen and Brawer's studies indicate that little, if anything, is retained by the student after one semester's exposure to a particular course of study - paticularly in the humanities. The lack of retention, (growth?) however, may not be due to the amount of time given to the exposure, but rather to the type of exposure given. That is, if the exposure given is at the lowest level of the cognitive domain, chances are that the retention may be slight (Krathwohl, Bloom, Masia). However, if the exposure given is at the higher levels of the cognitive domain, and in the affective domain, chances are that the retention would be

higher since the student would incorporate the knowledge into his own network of values and understanding. Cohen and Brawer do not, however, address the issues of intellectual and moral maturity on a developmental scale, nor do they have an assessment of the teaching styles of the instructors in their studies. Indeed, an evaluative instrument of teaching styles and an assessment of their dominant emphasis may not exist. It is therefore difficult to account for the lack of retention in the humanities without some assessment of moral and intellectual development. Perhaps those exhibiting little retention are at levels of intellectual and moral growth arrested at earlier stages of the developmental scheme.

Both Kohlberg and Perry used the interview process. Perry indicated that intellectual and moral maturity may not be discernable in the survey or questionnaire format. Maturity relies not on the specific answers given to a question, but rather on the method used to arrive at it. For example, a child may say it is wrong to steal because he would be punished. An adult (presumably at a higher level of moral reasoning) would say he also would not steal because it is wrong to take from another what is not yours. Both have the same response, but quite different reasoning is used to justify it. On the other hand, another adult may say, "Yes, it is wrong to steal, but if I had a starving family, it would be all right to steal a loaf of bread in order to feed them." Again, the answers are different, but a moral principle is operative. This points up the difficulty in the questionnaire. It supplies answer options which prohibit explanation or elaboration.

However, the questionnaire format can help determine value structures in the responses of students.

When a student takes a course in medical ethics, what does the instructor hope to convey to the student? What ought the student to come away with? In what direction does the course hope to benefit the student? What does the instructor use to evaluate his success or failure? What does philosophical training give to the student faced with an ethical dilemma? Does information about a concrete situation serve the student in making decisions in different situations? No ethicist is interested in giving advice for solving specific problems. The ethicist is engaged in deciding what constitutes moral conduct and in trying to formulate the norms of conduct. He or she is not a judge, but an analyst of consistency of thought processes. For example, in the case given above,, would it make sense to ask the two adults who answered differently, which was more moral? Does it even make sense to ask, which was more consistent? If the last person said, "It's wrong to steal however, when others may die if you don't, then its all right," does the problem of consistency occur?

This analysis introduces the concept of the hierarchy of values. The hierarchy indicates that while it is generally wrong to steal, it would be more wrong to allow others to die. Sometimes values are equal. When equal values conflict, there is no hierarchy to help solve the dilemma. In the case of whose life is more important to save, the mother's or the infant's in a difficult deliver, some normative ethics indicate that since both lives are of equal value - the physician must do nothing

to promote either life at the expense of the other (J.A.M.A., June 9, 1968). Of course, the decision to do nothing may result in the death of both. Thus, the dilemma is seen to surface.

Here is where the initial values clarification is essential. Most individuals are not aware of the values they hold internally. The process of values clarification is useful in bringing out those values for conscious appraisal. However, for ethical purposes, this is the beginning of the process. From the concrete examples, general principles are seen to surface and insconsistencies are laid bare. Resolution of those inconsistencies or at least a critical analysis of them is the task of ethical study.

In summary, educational purposes, both general, vocational/professional and philosophical, have practical implications which involve decision making which, in turn, involves the nature of choice. Not only can the educational network promote interface between polarized study, it should also do so in order to promote awareness and responsibility to choices.

# CHAPTER III

## PROCEDURES AND METHODOLOGY

There was a need for an instrument to stimulate thinking concerning problems which have developed regarding decision making in the medical ethical arena. One such instrument exists (Rokeach) for nurses. Because of this instrument's emphasis on the nursing professional, the terminology used in it is too technical for the general student population to understand.

There was also a problem with judging whether or not students registered in ethics courses actually do disagree in attitudinal preferences. Once aware of various difficulties in deciding on actions concerning the health and well-being of others, would students alter their initial choices? To date, no adequate way of measuring attitudinal preference other than the interview done over a period of years with the same students exists (Perry). An attempt was made to construct an instrument which would center its usefulness around posing case studies requesting a response to action. The same questions could be asked at the end of a course of study in order to measure a possible shift in responses.

Data was also not available to philosophers as to whether or not variables such as sex, age, curriculum religious preference, medical experience, registration in two or four year colleges, or experience with health care made a difference in decision making.

The field of medical ethics is relatively new. Pedagogical instruments for clustering theoretically similar cases were not developed for classroom use. This study attempted to provide pilot work in these areas.

Development and Validation of the Instrument

This project included the development of an instrument which asks the respondent to make decisions in taking action in case studies in the bio-medical area. The initial instrument (Appendix A) used in Spring, 1978, was limited in demographic information about respondents and contained ambiguities in language. For example, in #9 of that instrument, it was not clear whether or not the two people involved had previously had sexual relations.

During a workshop for Teachers of Philosophy in Schenectady, New York, in the summer of 1978, a revised instrument which included requests for more demographic information and general position statements (Appendix C) received face validation by a panel of seven philosophers involved in teaching medical ethics, social philosophy and/or thanatology. At that time, further clarification of ambiguous language was discussed and the inclusion of questions #23-#30 was requested. The initial instrument did not ask for general ethical positions. Inclusion of general ethical statements was seen as being heuristically useful in determining whether or not students could lift out general ethical positions when deciding on action in specific cases. Therefore, for teaching purposes, cases and questions were clustered in normative dimensions (Appendix E). Responses on these questions would range from "Agree Strongly" to "Strongly Disagree" (Likert type responses on a five point scale).

Philosophers were concerned with the conflict of legal and moral issues. For example, at this writing, sixteen states have passed on, and accept brain death as the criterion for death, while the remaining states use

biological death (heart, lung and renal failure) as the criterion for death. Conflict of state legislation, although common in the law, would serve confuse assessment of ethical positions. Therefore, the inclusion of the request to ignore legal issues was placed in the instructions of the survey instrument.

All philosophers who validated the instrument made comments on their reasoning processes for arriving at their decisions in the margins of the initial instrument. Student responses which included written explanations regarding their choices were also noted in the findings of this study. The need for explaining the process whereby one arrives at the decisions may be considered an indication of moral and intellectual maturity (Perry).

In all, twenty two cases were used. Some of the cases were taken from Krovitz Moral Problems in Medical Ethics, Beauchamp and Walters' Contemporary Issues in Bioethics, and from the Hastings Center "Report." Others were invented by the researcher or taken from cases reported in the daily newspapers.

Internal Structure of the Instrument

Three different Pedagogical modes were incorporated into the survey: (1) agreement among cases which addressed the same specific issue; (2) agreement among cases which involved different subject matters but similar broad ethical issues. (For example, case #2 was a request by a patient to see his chart and case #8 was the desire for a family not to have a patient know his condition. Both of these cases involve the general issue of the

"Right to Information" as do cases 9, 10, 15, 16, and 20). Comparisons of the responses of an individual to these cases involving the same general issues will provide heuristic content for analyzing underlying norms; and (3) agreement among general questions (23-30) and the specific case studies relating to general questions.

Each case study was accompanied by choices calling for a decision to act, a decision not to act and the answer option "undecided." Some cases ask the respondent to act as an authority figure, either nurse, doctor, institution or parent. The case studies ask respondents to make a decision based on their individual preferences. The choice of "undecided" or non-action was considered to be an active response in some of the cases. For example, in case one, not to give permission for surgery is an active response not to save the baby.

Pedagogical analysis for consistency was made on the basis of issues addressed in clusters of cases (Appendix E). Questions 1,6,14, concern the "Right to Life." Questions 2, 7, 9, 16, and 20 address the issue of "Right to Information." Questions 3, 5, 11, 12, 18 and 19 deal with the issue of the right to make one's own decisions (Autonomy) and questions 4, 6, 11, 14, 17 and 21 address the problem of parents making decisions for their children. Questions 9, 10, 13, 15 and 23 involve the issue of social responsibility. There were therefore five dimensions on which to analyze the specific case questions.

Selection of Sample

Philosophers teaching medical ethics courses, thanatology and/or

social problems courses were asked to have students enrolled in their courses participate in this study. Contacts with these philosophers were made at the American Philosophical Association, Pacific Division meeting in San Francisco, April, 1978; the Second National Conference on Teaching Philosophy, August, 1978; and through the Illinois Philosophers' Association. Non-philosophers teaching such courses were not contacted to participate. Since these courses are generally small in enrollment, and instructors wished as much information as they could get, as many teachers of Medical Ethics courses were contacted as possible. To date, there is no available data on the number of Medical Ethics courses offered across the country, or how many students are enrolled in those that are offered.

Twelve colleges participated in this study. They were:

Wheaton College, Norton, Massachusetts

Dowling College, Oakdale, New York

Cayuga Community College, Auburn, New York

Queensborough College, New York City, New York

Parkland College, Champaign, Illinois

Bradley University, Peoria, Illinois

Johns Hopkins University, Baltimore, Maryland

Texas A & M University, College Station, Texas

Harper College, Arlington Heights, Illinois

Mountain View College, Irving, Texas

Rhode Island Community College, Warwick, Rhode Island

Oakton Community College, Morton Grove, Illinois

The above colleges participated in the pre-testing program. Because of loss of post-test instruments by the U.S. Postal service, misunderstanding concerning the post-test procedure, etc., three colleges did not participate in the post-testing. They were:

Johns Hopkins, Baltimore, Maryland

Parkland College, Champaign, Illinois

Mountain View College, Irving, Texas

Of the original 405 students responding to the pre-test, 104 responded to the post-test.

Administration of Instrument and Collection of Data

Instructor of courses in medical ethics, thanatology or social problems courses received a packet of the survey instruments during August, 1978. They were instructed to administer the pre-test during the first week of the semester. All surveys were returned to the researcher, number coded to separate responses of each institution, and were key punched for computerization using the Statistical Package for the Social Sciences (SPSS).

Ten weeks was determined to be the lowest common denominator in time which all schools participating in the study could use. After nine weeks elapsed, a letter was sent to instructors advising them to administer post-tests. Because of the difference in time schedules, the difficulty of personally contacting instructors by phone and the possibility of postal loss, the participating instructors were given

permission to duplicate the instrument for the purpose of the post-test. Pre-test packet arrivals were sporadic and as the instrument was under government copywrite, permission to copy was regarded as expedient.

In December, 1978, an analysis of cases and questions was sent to each participating instructor (Appendix D). Instructors will be informed of the results of the study in March, 1979.

Statistical Analysis of Data

As an aggregate unit the pre- post-tests were used to determine the percentage of the people who responded to each question.

Cross tabulations provided descriptive data in order to determine whether there were differences among groups of respondents (i.e., demographically by age, sex, curriculum, etc.).

Chi square ($X^2$) at the .05 level of significance was used to determine whether significant differences existed among groupings at the same point in time on the pre- post-tests.

Chi square ($X^2$) at the .05 level of significance was used to determine whether significant differences existed among groupings at different points in time between the pre- and post-tests. That is, to determine if the distributions had changed during the time between testing.

There was no individual response analysis done. Changes in choices on the instrument were calculated between the pre- post-test by groups according to institution.

Marginal notations by respondents were noted as indications of the

processes by which students made their choices.

Responses in both the pre-test and the post-test on those questions which involved the same issue, but had the sex of the subject of the question changed were also compared.

## CHAPTER IV

## FINDINGS

The pre-tests included 405 responses from twelve schools (Appendix H). Table I displays the schools and the number of participants from each.

TABLE I

RESPONSES TO PRE-TEST
BY SCHOOL

| School | Number of Respondents |
|---|---|
| Oakton Community College | 19 |
| Bradley University | 13 |
| Harper College | 10 |
| Parkland College | 19 |
| Mountain View College | 78 |
| Dowling College | 17 |
| Wheaton College | 52 |
| Queensborough College | 12 |
| Texas A & M | 10 |
| Cayuga County Community College | 12 |
| Rhode Island Community College | 30 |
| Johns Hopkins University | 133 |
| Total | 405 |

The following findings occurred in the pre-test:

Responses by Sex

In four of the twenty-two case questions on the instrument and three of the eight general questions, significant differences in responses to the questions by sex appeared. Of those questions in which a difference of .05 or better was found, Question Two involving

a nurse showing charts to a patient indicate that while 44.4 percent of the males responding to the question would show the chart to a patient, 34.4 percent of the females responding would show the chart. Forty-one and five-tenths percent of the males would not, while 57.3 percent of the females responded they would not. Fourteen percent of the males were undecided on this question while eight and three-tenths percent of the females responded undecided.

Question Four responses indicated that 32.9 percent of the males would perform a sterilization on a retarded male and 43.7 percent of the females would. Of those who responded they would not perform the sterilization, eight percent more males than females were in this category.

Question 10 involved the practise of ghost surgery where residents in surgery are permitted to operate without the patient's knowledge. A greater percentage of females than males would tell the patient while almost twice the percentage of males as females would not tell the patient.

Question 18 involved the issue of artificial insemination on an unmarried female. While male and female responses were less than one and five-tenths percent apart, a larger percentage of males than females responded they would not perform the insemination. A larger percentage of females than males were undecided on this issue.

Table II illustrates the case questions exhibiting differences in response by sex. Table III illustrates general questions on the survey instrument which were found to have significant differences.

TABLE II

CASE QUESTIONS EXHIBITING DIFFERENCES
IN RESPONSE BY SEX

| | Male % | Female % | Association |
|---|---|---|---|
| **Question 2** | | | |
| Nurse with charts | | | |
| Answer 1 Show charts | 44.4 | 34.4 | $X^2$= 12.9761 |
| Answer 2 Don't show | 41.5 | 57.3 | df= 2 |
| Answer 3 Undecided | 14.0 | 8.3 | p= .00.5 |
| **Question 4** | | | |
| Sterilize retarded male | | | |
| Answer 1 Sterilize | 32.9 | 43.7 | $X^2$= 6.3541 |
| Answer 2 Don't | 39.1 | 31.1 | df= 2 |
| Answer 3 Undecided | 28.0 | 25.2 | p= .0417 |
| **Question 10** | | | |
| Ghost surgery | | | |
| Answer 1 Tell | 64.3 | 73.8 | $X^2$= 12.3448 |
| Answer 2 Don't tell | 27.1 | 14.6 | df= 2 |
| Answer 3 Undecided | 8.7 | 11.6 | p= .0021 |
| **Question 18** | | | |
| Artificial Insemination | | | |
| Answer 1 Perform | 45.7 | 44.5 | $X^2$= 6.0927 |
| Answer 2 Do not | 32.2 | 24.6 | df= 2 |
| Answer 3 Undecided | 22.1 | 30.9 | p= .0475 |

Significance = .05 or better

N=405 responses. One hundred eighty male respondents and 225 female respondents.

Three general position questions exhibited differences in responses by sex. Question 23 stated, "An individual's interest is more important than society's interest." A greater percentage of females than males agreed with this statement. Less than one percent more males than females were undecided.

Question 25 stated, "When an individual and society's interest conflict, society's interest is more important." A greater percentage of males than females agreed with this statement while 11.9 percent more males than females were undecided in their responses to the statement.

Question 30 stated, "It is all right for a doctor to withhold information from rational patients." A total of 86.4 percent of the females responding to this statement were in disagreement with it. Seventy-four and three-tenths percent of the males disagreed with the statement, while a greater percentage of males than females were undecided.

All three of the general position questions on the survey found male respondents had a higher percentage of undecided responses than did the females. The case questions had a higher percentage of undecided males in Question Two and Question Four while Questions 10 and 18 yielded a higher percentage of females than males undecided.

The total number of respondents were 405 of which 180 were male and 225 were female.

TABLE III

GENERAL QUESTIONS EXHIBITING DIFFERENCES
IN RESPONSE BY SEX

| | Male % | Female % | Association |
|---|---|---|---|
| Question 23 | | | |
| An individual's interest is more important than society's | | | |
| Strongly Agree | 17.5 | 21.5 | $X^2$= 12.83811 |
| Agree | 38.8 | 45.5 | df= 4 |
| Undecided | 18.9 | 17.8 | p= .0121 |
| Disagree | 19.4 | 14.2 | |
| Strongly Disagree | 5.3 | 1.0 | |
| Question 25 | | | |
| When and individual's and society's interest conflict, society's interest is more important | | | |
| Strongly Agree | 4.9 | 2.3 | $X^2$= 18.56956 |
| Agree | 18.9 | 15.0 | df= 5 |
| Undecided | 33.5 | 21.6 | p= .0023 |
| Disagree | 35.4 | 48.5 | |
| Strongly Disagree | 7.3 | 12.3 | |
| Question 30 | | | |
| It is all right for a doctor to withhold information from a rational patient | | | |
| Strongly Agree | 4.4 | 2.0 | $X^2$= 24.75563 |
| Agree | 11.2 | 4.6 | df= 4 |
| Undecided | 10.2 | 6.9 | p= .0001 |
| Disagree | 48.1 | 40.9 | |
| Strongly Disagree | 26.2 | 45.5 | |

Significance=.05 or better

N=405 responses. One hundred eighty male and 225 female.

Responses by Religious Preference

No case questions yielded significant differences in response by religious preference and only one general question showed a significant difference of .05 or better. Question 27 asked the respondents if a person over eighteen can refuse treatment. Eleven and eight-tenths percent of the Catholics disagreed while 19.7 percent of the Jews and six and three-tenths percent of the Protestants responding disagreed. Four and five-tenths percent of the Jewish respondents were undecided with Catholics and Protestants eight and eight-tenths percent and "Others" undecided by six and eight-tenths percent. The findings appear in Table IV below.

TABLE IV

GENERAL QUESTIONS EXHIBITING DIFFERENCES IN RESPONSES BY RELIGION

| | Other % | Protestant % | Catholic % | Jewish % | Association |
|---|---|---|---|---|---|
| Question 27 | | | | | |
| Persons under 18 can refuse care | | | | | |
| Strongly Agree | 37.8 | 19.7 | 23.5 | 22.7 | $\chi^2$=31.110 |
| Agree | 52.7 | 64.6 | 51.5 | 51.5 | df=12 |
| Undecided | 6.8 | 8.7 | 8.8 | 4.5 | p= .0019 |
| Disagree | - | 6.3 | 11.8 | 19.7 | |
| Strongly Disagree | 2.7 | 0.8 | 4.4 | 1.5 | |

Significance-.05 or better

N=403 responses. One hundred twenty-seven Protestant, 136 Catholic, 66 Jewish and 74 "Other."

Respondents to the questions exhibiting religious preferences totalled 403. Of those 127 were Protestant, 136 were Catholic, 66 were Jewish and 74 identified themselves as "Other."

Responses by Curriculum

Table V displays the findings on cases by curriculum which resulted in significant differences of .05 or better. Case questions which exhibited these differences were:

Question Four, "You have a mentally retarded son who is physically mature. You are concerned he will father children with the same deficiency. He has been institutionalized since he was five." A larger percentage of vocational students would sterilize the subject while larger percentages of liberal arts students (34.3%) and of "Other" students (42.1%) would not sterilize in comparison to the 19.7 percent of the vocational students who would not sterilize. Of the undecided responses, a greater percentage of vocational students (36.4%) than liberal arts (26.8%) and "Other" (20.6%) was exhibited.

Question 17 involves a sixteen year old with venereal disease who wishes treatment without parents' knowledge. Percentage distributions were in favor of treatment across curriculum categories. The largest percentage of undecided responses were, however, given by vocational students.

Only one general question, Question 27 revealed significant differences in response by curriculum. This question involved the right of a person over eighteen to make decisions about health care. Responses to this question are displayed in Table VI.

TABLE V

CASE QUESTIONS EXHIBITING DIFFERENCES
IN RESPONSE BY CURRICULUM

| | Liberal Arts % | Vocational % | Other % | Association |
|---|---|---|---|---|
| Question 4 | | | | |
| Retarded Male | | | | |
| Answer 1 Sterilize | 38.9 | 43.9 | 37.3 | $X^2$=10.8802 |
| Answer 2 Don't | 34.3 | 19.7 | 42.1 | df= 4 |
| Answer 3 Undecided | 26.8 | 36.4 | 20.6 | p= .0279 |
| Question 17 | | | | |
| 16 year old with VD | | | | |
| Answer 1 Treat | 90.6 | 83.3 | 88.8 | $X^2$= 9.5511 |
| Answer 2 Don't | 5.2 | 4.5 | 8.0 | df= 4 |
| Answer 3 Undecided | 4.2 | 12.1 | 3.2 | p= .0487 |

Significance=.05 or better

N=397 responses. Two hundred thirty-nine in liberal arts, 56 in vocational programs and 102 in other curricula.

TABLE VI

GENERAL QUESTIONS EXHIBITING DIFFERENCES
IN RESPONSE BY CURRICULUM

| | Liberal Arts % | Vocational % | Other % | Association |
|---|---|---|---|---|
| Question 27 | | | | |
| Over 18 can refuse medical care | | | | |
| Strongly Agree | 27.7 | 22.7 | 24.0 | $X^2$=15.3605 |
| Agree | 55.0 | 57.6 | 55.2 | df= 8 |
| Undecided | 6.5 | 9.1 | 10.4 | p= .0525 |
| Disagree | 9.4 | 3.0 | 8.8 | |
| Strongly Disagree | 1.3 | 7.6 | 1.6 | |

Significance-.05 or better

N=397 responses. Two hundred thirty-nine in liberal arts, 56 in vocational programs and 102 in other curricula.

Responses by Vocational Curricula

Table VII exhibits the only case question in which significant findings of .05 or better were found in responses by vocationalists. Question 16 asked whether or not the respondent, as a genetic counselor, would consider telling the prospective parents the sex of the fetus if the counselor knew the couple were planning an abortion on the basis of this information. A greater percentage of those in vocations other than the allied health fields would tell the sex of the fetus to the parents (75% as compared to 45%). The question also revealed a larger percentage of allied health vocationalists undecided on this issue (26.7%) than of those in other vocational curricula (6.3%).

TABLE VII

CASE QUESTIONS EXHIBITING DIFFERENCES BY VOCATIONAL CURRICULUM OF RESPONDENTS

| | Allied Health % | Other % | Association |
|---|---|---|---|
| Question 16 | | | |
| Genetic Counselor | | | |
| Answer 1 Tell sex | 45.0 | 75.0 | $X^2$= 8.60120 |
| Answer 2 Don't tell | 28.3 | 18.8 | df= 2 |
| Answer 3 Undecided | 26.7 | 6.3 | p= .0136 |

N=77 respondents in the category. Fifty-seven in Allied Health and 20 in other vocational curricula.

Table VIII displays responses of vocational students to the general question which yielded a significant difference in responses of .05 or better. If responses to Strongly Agree and Agree are totalled, 82 percent of the students in allied health agree that those over

18 have a right to refuse medical care even if it may save one's life. Eighty-one and five-tenths percent of those in other vocations agreed. A greater percentage of the allied health respondents were undecided on this question than were those in other vocational curricula. While a total of eight percent of those in allied health compared with 14.8 percent of those in other vocations disagreed with the statement, both groups clearly favored the statement.

TABLE VIII

GENERAL QUESTIONS EXHIBITING DIFFERENCES BY VOCATIONAL CURRICULUM OF RESPONDENTS

| | Allied Health % | Other % | Association |
|---|---|---|---|
| Question 27 | | | |
| Those over 18 have a right to refuse care | | | |
| Strongly Agree | 20.0 | 22.2 | $\chi^2$= 20.637 |
| Agree | 62.0 | 59.3 | df= 8 |
| Undecided | 10.0 | 3.7 | p= .0082 |
| Disagree | 0.0 | 7.4 | |
| Strongly Disagree | 8.0 | 7.4 | |

Significance=.05 or better

N=77 responses. Fifty-seven in allied health and 20 in other vocational curricula.

Responses by Marital Status

All but one of the five cases yielding significant differences of .05 or better by marital status of the respondents involved issues of reproduction or reproductive ability.

Question Four involved the sterilization of a retarded male. Eighty percent of the marrieds and 100 percent of the widowed responded they would sterilize while only 27.5 percent of the single students would do so. Forty-one and six-tenths percent of the single students responded they would not sterilize and 30.7 percent were undecided.

Responses to Question Five indicated that 80 percent of the widows would not sterilize. Forty-two percent of the married, 23.3 percent of the single and 29.4 percent of the divorced would not. In the question involving a female sterilization (12), 64.7 percent of the divorced respondents would sterilize, 100 percent of the widowed would, while 55.9 percent and 55.3 percent of the married and single would. Forty-two and four-tenths percent of the married and 60 percent of the widowed would also do the vasectomy in Question Five. Forty-two and four-tenths percent of the married and 60 percent of the widowed would not. The percentages of single and divorced respondents' answers were similar in these two questions. None of the separated would do the tubal ligation in Question 12. Forty percent of the widows were undecided, 21.7 percent of the single, 11.8 percent of the divorced and five and one-tenths percent of the married with none of the widowed were undecided in both the tubal ligation and the vasectomy. In both case Questions Five and 12, 100 percent of the separated would perform the procedure.

Question 22 which involved the sterilization of the female retardant indicated responses of 80 percent of the widowed, 66.7 percent

of the separated, 59.3 percent of the married, 36.5 percent of the single would sterilize. Of those who would not, 30.7 percent of the single would not, nor would 20 percent of the widowed, 17.6 percent of the divorced, 16.9 percent of the married and none of the widowed would sterilize. The greatest percentages of undecided on this issue were the widowed, with singles being the closest to them. Twenty-nine and four-tenths percent of the divorced and 23.7 percent of the marrieds were also undecided.

Question 19 asked whether or not to give food stamps to a mother who refused to have her child's blood tested. One hundred percent of the separated, 79.7 percent of the married, 70.6 percent of the divorced, 56.5 percent of the singles and 20 percent of the widowed would give her the stamps while 60 percent of the widowed, 30.4 percent of the single, 29.4 percent of the divorced, 15.3 percent of the married and none of the separated would refuse to give the mother the food stamps.

Care must be taken in analyzing the figures according to marital status since the number of divorced, widowed and separated were relatively small (17, five and three, respectively) compared to the 321 respondents who were single and 59 wo were married.

Case question response by marital status which indicated a .05 level of significance or better are presented in Table IX. Table X presents findings of general questions which exhibited significant differences by marital status of the respondents.

TABLE IX

CASE QUESTIONS EXHIBITING DIFFERENCES
BY MARITAL STATUS OF RESPONDENTS

| | Married % | Single % | Divorced % | Widowed % | Separated % | Assoc. |
|---|---|---|---|---|---|---|
| Question 4 | | | | | | |
| Sterilize Male | | | | | | $X^2$=36.1855 |
| Answer 1 Yes | 59.3 | 27.6 | 52.9 | 80.0 | 100.0 | df= 8 |
| Answer 2 No | 23.7 | 41.6 | 23.5 | - | - | p= .0000 |
| Answer 3 Undecided | 16.9 | 30.7 | 23.5 | 20.0 | - | |
| Question 5 | | | | | | |
| Vasectomy | | | | | | $X^2$=26.667 |
| Answer 1 Do | 54.2 | 59.0 | 41.2 | - | 100.0 | df= 8 |
| Answer 2 Do not | 42.4 | 23.3 | 29.4 | 80.0 | - | p= .0008 |
| Answer 3 Undecided | 3.4 | 17.7 | 29.4 | 20.0 | - | |
| Question 12 | | | | | | |
| Tubal Ligation | | | | | | $X^2$=21.7086 |
| Answer 1 Do | 55.9 | 55.3 | 64.7 | - | 100.0 | df= 8 |
| Answer 2 Do Not | 39.0 | 23.0 | 23.5 | 60.0 | - | p= .0005 |
| Answer 3 Undecided | 5.1 | 21.7 | 11.8 | 40.0 | - | |
| Question 19 | | | | | | |
| Food Stamps | | | | | | $X^2$=19.0096 |
| Answer 1 Refuse | 15.3 | 30.4 | 29.4 | 60.0 | - | df= 8 |
| Answer 2 Give | 79.7 | 56.5 | 70.6 | 20.0 | 100.0 | p= .0148 |
| Answer 3 Undecided | 5.1 | 13.0 | - | 20.0 | - | |
| Question 22 | | | | | | |
| Sterilize Female | | | | | | $X^2$=17.2077 |
| Answer 1 Do | 59.3 | 36.5 | 52.9 | 80.0 | 66.7 | df= 8 |
| Answer 2 Do Not | 16.9 | 30.7 | 17.6 | 20.0 | - | p= .0280 |
| Answer 3 Undecided | 23.7 | 32.8 | 29.4 | - | 33.3 | |

Significance=.05 or better

N=405 responses. Fifty-nine married, 321 single, 17 divorced, five widowed, and three separated.

TABLE X

GENERAL QUESTIONS EXHIBITING DIFFERENCES
BY MARITAL STATUS OF RESPONDENTS

| | Married % | Single % | Divorced % | Widowed % | Separated % | Assoc. |
|---|---|---|---|---|---|---|
| Question 28 | | | | | | |
| Parents have right to make decision for child under 18 years old | | | | | | |
| Strongly Agree | 18.6 | 10.2 | 17.6 | 20.0 | 33.3 | $X^2$=31.0817 |
| Agree | 50.8 | 47.1 | 29.4 | 60.0 | 33.3 | df=16 |
| Undecided | 16.9 | 26.9 | 29.4 | - | - | p= .0131 |
| Disagree | 13.6 | 13.9 | 23.5 | 20.0 | - | |
| Strongly Disagree | - | 1.9 | - | - | 33.3 | |

Significance=.05 or better

N=405 responses. Fifty-nine married, 321 single, 17 divorced, five widowed, and three separated.

The above table indicates that one general question yielded significant differences in responses of .05 or better. Sixty percent of the widowed, 50.8 percent of the married and 47.1 percent of the singles agree that parents have the right to make decisions for their children under 18 years of age. Twenty-three and five-tenths percent of the divorced, 13.6 percent of the married and 13.9 percent of the singles disagree with the statement. The greatest disparity among answers may be seen among those who disagreed and strongly disagreed along with those who were undecided.

Responses by Importance of Religion

Table XI displays the case questions with significant differences in response by importance of religion in respondents' lives by .05 or better. Four case questions yielded these differences. Sixty-one and three-tenths percent of those to whom religion was important said they would give corrective surgery to a gravely defective child, where 64 percent of those whose religion was unimportant to them said they would not. Combining the percentage of answers of those to whom religion was important and those to whom it was somewhat important shows that almost twice the percentages would give consent than of those to whom religion was either very unimportant or somewhat unimportant. A greater percentage of those to whom religion was somewhat unimportant and very unimportant would not do the surgery while half the percentage of the respondents for whom religion was important or very important would not do the surgery.

Question 12 involved a tubal ligation. Seventy-one percent of those whose religion was somewhat unimportant responded they would do it and 64 percent of those whose beliefs were unimportant would perform the tubal ligation. Fifty-one and six-tenths percent of those to whom religion was important and 50.9 percent of those to whom it was somewhat important would do the ligation. The greatest percentage of those who would not perform the ligation were those to whom religion was very important.

Question 16 involved telling the sex of an unborn child to the parents. As the genetic counselor, the greatest percentage of those

who would not tell the parents were those to whom religion was important while the greatest percentage of those undecided were those to whom religion was somewhat unimportant.

In Question 18, those who would perform the artificial insemination on an unmarried woman were those to whom religion was either somewhat unimportant or very important. The greatest percentage of those who would not perform the artificial insemination on an unmarried woman were those to whom religion was either somewhat important or very important.

Table XII exhibits general questions which indicated a significant difference in responses of .05 or better by religious importance. Two questions were found to be significant in this category. Those to whom religion was very unimportant both agreed and strongly disagreed that a person over 18 has a right to refuse medical care even though that care may save his or her life. A greater percentage of this group agreed with the statement than of any of the other groups of respondents. The smallest percentage of respondents who were undecided on this question were also from the group to whom religion was unimportant.

Question 30 addressed the issue of doctors withholding information from rational patients. Those to whom religion was very unimportant had the greatest percentage of responses for strongly disagreeing with the statement. This group of respondents also had the smallest percentage of undecided responses. The percentages of those who disagreed with the statement were relatively evenly distributed.

TABLE XI

CASE QUESTIONS EXHIBITING DIFFERENCES BY IMPORTANCE OF RELIGION TO RESPONDENTS

| | Very Important % | Somewhat Important % | Somewhat Unimportant % | Very Unimportant % |
|---|---|---|---|---|
| Question 1 | | | | |
| Corrective surgery for baby | | | | |
| Answer 1 Do | 61.3 | 45.2 | 33.3 | 26.0 |
| Answer 2 Don't | 15.3 | 38.6 | 33.3 | 64.0 |
| Answer 3 Undecided | 23.4 | 16.3 | 33.3 | 10.0 |
| $X^2$=49.8458; df=6; p=.000 | | | | |
| Question 12 | | | | |
| Tubal ligation | | | | |
| Answer 1 Do | 51.6 | 50.9 | 71.0 | 64.0 |
| Answer 2 Don't | 32.3 | 28.1 | 8.1 | 22.0 |
| Answer 3 Undecided | 16.1 | 21.0 | 21.0 | 14.0 |
| $X^2$=16.2120; df=6; p=.0217 | | | | |
| Question 16 | | | | |
| Genetic counselor | | | | |
| Answer 1 Tell | 48.0 | 60.5 | 65.1 | 76.0 |
| Answer 2 Don't tell | 35.0 | 26.3 | 14.3 | 14.0 |
| Answer 3 Undecided | 17.1 | 13.2 | 20.6 | 10.0 |
| $X^2$=18.3082; df=6; p=.0055 | | | | |
| Question 18 | | | | |
| Artificial insemination | | | | |
| Answer 1 Do | 36.3 | 44.9 | 58.7 | 58.0 |
| Answer 2 Don't | 35.5 | 29.3 | 15.9 | 18.0 |
| Answer 3 Undecided | 28.2 | 25.7 | 25.4 | 24.0 |
| $X^2$=14.450; df=6; p=.0252 | | | | |
| Significance=.05 or better | | | | |

N=402 responses. One hundred twenty-three, religion very important, 166, religion somewhat important, 63, somewhat unimportant and 50 very unimportant.

TABLE XII

GENERAL QUESTIONS EXHIBITING DIFFERENCES BY IMPORTANCE OF RELIGION TO RESPONDENTS

| | Very Important % | Somewhat Important % | Somewhat Unimportant % | Very Unimportant % |
|---|---|---|---|---|
| Question 27 | | | | |
| Over 18 has right to refuse medical care | | | | |
| Strongly Agree | 22.6 | 22.2 | 15.9 | 48.0 |
| Agree | 57.3 | 55.7 | 63.5 | 46.0 |
| Undecided | 8.1 | 9.0 | 7.9 | 2.0 |
| Disagree | 8.9 | 11.4 | 6.3 | 4.0 |
| Strongly Disagree | 3.2 | 1.8 | 6.3 | - |
| $X^2$=25.8007 | | | | |
| df=12 | | | | |
| p= .0115 | | | | |
| Question 30 | | | | |
| Doctors may withhold information from patients | | | | |
| Strongly Agree | 4.0 | 4.2 | 1.6 | - |
| Agree | 15.3 | 4.8 | 3.2 | 4.0 |
| Undecided | 8.1 | 9.0 | 11.1 | 4.0 |
| Disagree | 45.2 | 47.0 | 47.6 | 4.0 |
| Strongly Disagree | 27.4 | 34.9 | 36.5 | 52.0 |
| $X^2$=25.0910 | | | | |
| df=12 | | | | |
| p= .0144 | | | | |

N=402 responses. One hundred twenty-three to whom religion was very important, 166 to whom religion was somewhat important, 63 to whom it was somewhat unimportant and 50 to whom religion was very unimportant.

Responses by Relationship to Health Care Professionals

Table XIII exhibits differences in responses of participants in this study by relationship with health care professionals. A greater percentage of those not related to health care professionals (72.1%) would not assist in the abortion in Question Three and were less undecided than were those related to health care professionals (11.7%).

Question Five addressed the issue of vasectomy for a married man without his wife's knowledge. A greater percentage of the respondents unrelated to health care professionals (62.4%) would sterilize while a lesser percentage of the respondents related to those professionals would (43.3%). A greater percentage of those related to health care professionals were undecided (19.8%) than those who were not related (11.8%).

In Question Six, again, those unrelated to health care professionals were less undecided (8.7%) than those related to health care professionals (13.4%) as to whether or not to operate on an emergency involving a minor without parental consent. A lesser percentage of those with relations in health care responded to operate (77%) than those who were not (85.7%).

Question 12 addressed the issue of a female sterilization without the husband's knowledge. Responses indicated that those unrelated to health care professionals would give a tubal ligation without the husband's knowledge (57.8%) than those who were related (46.2%). A greater percentage of those related to professionals were undecided (25.8%) than of those respondents who were not related (16.5%).

TABLE XIII

CASE QUESTIONS EXHIBITING DIFFERENCES BY RELATIONSHIP WITH HEALTH PROFESSIONAL

| | Related % | Unrelated % | Association |
|---|---|---|---|
| **Question 3** | | | |
| Nurse Assist in Abortion | | | |
| Answer 1 Assist | 23.4 | 21.9 | $\chi^2$= 5.8265 |
| Answer 2 Do not | 64.9 | 72.1 | df= 2 |
| Answer 3 Undecided | 11.7 | 6.0 | p= .0543 |
| **Question 5** | | | |
| Vasectomy | | | |
| Answer 1 Perform | 43.3 | 62.4 | $\chi^2$= 17.8142 |
| Answer 2 Do not | 36.9 | 25.8 | df= 2 |
| Answer 2 Undecided | 19.8 | 11.8 | p= .0001 |
| **Question 6** | | | |
| Teenage Emergency | | | |
| Answer 1 Wait | 9.6 | 5.6 | $\chi^2$= 6.2926 |
| Answer 2 Operate | 77.0 | 85.7 | df= 2 |
| Answer 3 Undecided | 13.4 | 8.7 | p= .0430 |
| **Question 12** | | | |
| Tubal Ligation | | | |
| Answer 1 Perform | 46.2 | 57.8 | $\chi^2$= 8.3174 |
| Answer 2 Do Not | 28.0 | 25.8 | df= 2 |
| Answer 3 Undecided | 25.8 | 16.5 | p= .0156 |

Significance=.05 or better

N=405 responses. One hundred forty-six related to health care deliverers and 259 who were not.

Responses by Work Experience in Health Care

Table XIV displays findings on case questions by work experience with health care. Question 2 responses indicate that a greater percentage of those with experience would withhold charts than those without. A greater percentage of those with no experience would, in Question 8, inform a dying patient of his condition (61.7%) than those with experience (56.4%). A larger percentage of those with experience (27.9%) were undecided on this issue than were those without experience (17.9%)

Question 11 asked whether or not to continue treatment of a 17 year old leukemia victim. Those with experience in health care were almost 10 percent less in favor of continuing treatment than those without experience. Those without experience in Question 12 responses indicated they would perform the tubal ligation (60.7%) while only 47.6 percent of those with experience would. A greater percentage of experienced people would be undecided (22.9%) than those who were inexperienced (16.3%).

Question 17 indicated that while 92.5 percent of those inexperienced would treat a minor with venereal disease, 83.1 percent with experience would approve. Eight and four-tenths percent of the experienced respondents would not treat and were undecided, and three and eight-tenths percent of those who were without experience in health care answered both not to treat and undecided.

TABLE XIV

CASE QUESTIONS EXHIBITING DIFFERENCES BY WORK EXPERIENCE IN HEALTH CARE

| | Yes % | No % | Association |
|---|---|---|---|
| **Question 2** | | | |
| Patient seeing charts | | | |
| Answer 1 Show patient | 27.1 | 44.8 | $X^2$=19.6626 |
| Answer 2 Do not show | 65.1 | 42.7 | df= 2 |
| Answer 3 Undecided | 8.8 | 12.8 | p= .0001 |
| **Question 8** | | | |
| Physician informing patient | | | |
| Answer 1 Inform | 56.4 | 61.7 | $X^2$= 6.0240 |
| Answer 2 Do not | 15.8 | 20.4 | df= 2 |
| Answer 3 Undecided | 27.9 | 17.9 | p= .0492 |
| **Question 11** | | | |
| 17 year old with leukemia | | | |
| Answer 1 Discontinue treatment | 70.5 | 63.3 | $X^2$= 7.4908 |
| Answer 2 Continue treatment | 12.7 | 23.3 | df= 2 |
| Answer 3 Undecided | 16.9 | 13.3 | p= .0236 |
| **Question 12** | | | |
| Tubal libation | | | |
| Answer 1 Perform | 47.6 | 60.7 | $X^2$= 6.8708 |
| Answer 2 Do not | 29.5 | 23.0 | df= 2 |
| Answer 3 Undecided | 22.9 | 16.3 | p= .0322 |
| **Question 17** | | | |
| 16 year old with veneral disease | | | |
| Answer 1 Treat | 83.1 | 92.5 | $X^2$= 8.4808 |
| Answer 2 Do not treat | 8.4 | 3.8 | df= 2 |
| Answer 3 Undecided | 8.4 | 3.8 | p= .0144 |

Significance = .05 or better

N=405 responses. One hundred sixty-six with experience in health care, 239 with no experience in health care.

TABLE XV

GENERAL QUESTIONS EXHIBITING DIFFERENCES BY WORK EXPERIENCE WITH HEALTH CARE

| | Yes % | No % | Association |
|---|---|---|---|
| Question 27 | | | |
| Those over 18 have a right to make decisions | | | |
| Strongly Agree | 24.7 | 25.4 | $X^2$=10.1839 |
| Agree | 58.4 | 54.2 | df= 4 |
| Undecided | 6.0 | 8.8 | p= .0374 |
| Disagree | 6.0 | 10.8 | |
| Strongly Disagree | 4.8 | 0.8 | |
| Question 29 | | | |
| Health Care Professionals are trained in ethics | | | |
| Strongly Agree | 7.8 | 1.3 | $X^2$=13.6762 |
| Agree | 27.1 | 29.7 | df= 4 |
| Undecided | 24.1 | 23.7 | p= .0084 |
| Disagree | 33.1 | 31.8 | |
| Strongly Disagree | 7.8 | 13.8 | |

Significance=.05 or better

N=405 responses. One hundred sixty-six with experience in health care, 239 with no experience in health care.

The above table exhibits the two general issue questions which showed significant differences in responses. Question 27 and Question 28 show similar percentages in responses to questions except that a larger percentage of those with no experience strongly disagreed with the statement in Question 29 than those who had such experience.

Responses by Experience with Illness

Table XVI displays the single question which yielded a significant difference of .05 or better in responses to questions by experience with illness. Of those with no experience with illness, 65.4 percent responded they would perform the vasectomy posed in Question Five, while 52 percent of those with experience with illness said they would. Of those with experience with illness, 16.1 percent were undecided while 11.3 percent of those with no experience were undecided.

TABLE XVI

CASE QUESTIONS EXHIBITING DIFFERENCES BY EXPERIENCE WITH ILLNESS

| | Experience % | No Experience % | Association |
|---|---|---|---|
| Question 5 | | | |
| Vasectomy | | | $X^2$= 7.1435 |
| Answer 1 Perform | 52.0 | 65.4 | df= 4 |
| Answer 2 Do Not | 31.9 | 23.3 | p= .0281 |
| Answer 3 Undecided | 16.1 | 11.3 | |

Significance=.05 or better

N=403 responses. Two hundred ninety-four with experience with illness and 109 without experience with illness.

Responses by Age

Age groups of respondents were divided into two groupings. Those more than 25 years old and those who were younger. There were 319 re-

spondents under 25 and 74 respondents who were over. Eighteen people did not respond to the question on age and were counted as missing observations.

Table XVII below shows those case questions which exhibited differences in response of .05 or better. Responses to Questions Five and 12 are similar. Responses to Questions Four and 22 are dissimilar. These cases involve the same issues with the sex of the subject changed. Those over 25 were evenly distributed in the answers to question Four while a greater percentage of those over 25 responded that they would sterilize the retarded female. Approximately 14 percent more of the under 25 year olds would not sterilize the male retardant than would the over 25 year olds. Thirteen percent more of the older respondents would inform the fiance in Question Nine of the syphilitic condition of the male than would the younger students. Question 19 involved the right of a mother to refuse to have her child's blood tested. Thirty percent of the younger students would then refuse to give the mother food stamps while half that percentage of older students would refuse. Seventy-five and seven-tenths of the older students would give the mother the stamps and 57.4 percent of the younger students would. Almost twice the percentage of younger students as older students were undecided on this issue.

There were no general questions which indicated significant differences in responses to questions by age. Table XVII displays those questions which had significant differences by age in the case questions on the survey instrument.

TABLE XVII

CASE QUESTIONS EXHIBITING DIFFERENCES
IN RESPONSE BY AGE

| | Under 25 % | Over 25 % | Association |
|---|---|---|---|
| Question 4 | | | |
| Sterilize Retarded Male | | | |
| Answer 1 Yes | 29.9 | 28.0 | $X^2$=11.7545 |
| Answer 2 No | 40.0 | 26.0 | df= 2 |
| Answer 3 Undecided | 29.6 | 23.3 | p= .0028 |
| Question 5 | | | |
| Vasectomy | | | |
| Answer 1 Do | 58.5 | 50.0 | $X^2$= 7.6998 |
| Answer 2 Do Not | 23.9 | 39.2 | df= 2 |
| Answer 3 Undecided | 17.6 | 10.8 | p= .0213 |
| Question 9 | | | |
| Syphilitic Patient | | | |
| Answer 1 Tell fiance | 73.7 | 86.5 | $X^2$= 7.2291 |
| Answer 2 Do not tell | 15.4 | 4.1 | df= 2 |
| Answer 3 Undecided | 11.0 | 9.5 | p= .0269 |
| Question 12 | | | |
| Tubal ligation | | | |
| Answer 1 Do | 56.0 | 54.1 | $X^2$= 9.4918 |
| Answer 2 Do Not | 22.3 | 36.5 | df= 2 |
| Answer 3 Undecided | 21.7 | 9.5 | p= .0087 |
| Question 19 | | | |
| Food Stamps | | | |
| Answer 1 Refuse | 30.0 | 17.6 | $X^2$= 8.4184 |
| Answer 2 Give | 57.4 | 75.7 | df=2 |
| Answer 3 Undecided | 12.6 | 6.8 | p= .0149 |
| Question 22 | | | |
| Sterilize retarded male | | | |
| Answer 1 Do | 37.9 | 56.8 | $X^2$=10.8763 |
| Answer 2 Do Not | 30.9 | 14.9 | df= 2 |
| Answer 3 Undecided | 31.2 | 28.4 | p= .0043 |

Significance=.05 or better

N=393 responses. Three hundred nineteen 25 and under and 74 over 25.

Evidence tended to support the null hypothesis that there is no significant difference in responses to the pre-test by sex, religious preference, curriculum, vocational curriculum, marital status, importance of religion, relationship of the respondents to health care professionals, experience with illness or age.

Post-test Results

Those colleges and universities which completed the post-tests and returned the responses are listed in Table XVIII below along with the total number of students who participated in each college in this phase of the study.

TABLE XVIII

RESPONSES TO POST-TEST BY SCHOOL

| School | Number of Respondents |
|---|---|
| Oakton Community College | 19 |
| Harper College | 9 |
| Wheaton College | 32 |
| Bradley University | 5 |
| Queensborough College | 7 |
| Dowling College | 9 |
| Cayuga Community College | 15 |
| Texas A & M University | 11 |
| Total | 107 |

Table XIX presents the complete findings of the pre- post-test responses. Those responses which indicated a significant difference in responses between the pre- post-tests are marked with an asterisk (*). A total of six questions yielded significant differences.

E XIX

PRE- POST-TEST RESULTS BY COLLEGE
BY PERCENT

| | Texas A & M | | Cayuga | | Dowling | | Total % | |
|---|---|---|---|---|---|---|---|---|
| | Pre | Post | Pre | Post | Pre | Post | Pre | Post |
| Question | | | | | | | | |
| 1. Baby with blockage | | | | | | | | |
| 1. Perform Surgery | 40.0 | 27.3 | 41.7 | 40.0 | 64.7 | 28.6 | 46.3 | 36.2 |
| 2. Do Not | 40.0 | 45.5 | 41.7 | 46.7 | 11.8 | 57.1 | 33.4 | 44.8 |
| 3. Undecided | 20.0 | 27.3 | 16.7 | 13.3 | 23.5 | 14.3 | 20.2 | 19.0 |
| 2. Nurse show records | | | | | | | | |
| 1. Show | - | | 33.3 | 33.3 | 58.8 | 57.1 | 37.6 | 42.9 |
| 2. Don't Show | 30.0 | 45.5 | 66.7 | 53.3 | 23.5 | 42.9 | 51.7 | 45.7 |
| 3. Undecided | 70.0 | 54.5 | - | 13.3 | 17.6 | - | 10.7 | 10.5 |
| 3. Assist in Abortion | | | | | | | | |
| 1. Assist | 30.0 | 18.2 | 16.7 | 26.7 | 29.4 | 28.6 | 23.5 | 19.0 |
| 2. Do not Assist | 70.0 | 81.8 | 75.0 | 60.0 | 64.7 | 71.4 | 69.4 | 66.7 |
| 3. Undecided | - | - | 8.3 | 13.3 | 5.9 | - | 7.1 | 14.3 |
| 4. Retarded Male | | | | | | | | |
| 1. Sterilize | 50.0 | 45.5 | 66.7 | 60.0 | 35.3 | 42.9 | 34.6 | 58.1 |
| 2. Do not | 30.0 | 36.4 | 25.0 | 13.3 | 41.2 | 42.9 | 37.1 | 21.9 |
| 3. Undecided | 20.0 | 18.2 | 8.3 | 26.7 | 23.5 | 14.3 | 31.1 | 20.0 |
| 5. Vasectomy | | | | | | | | |
| 1. Perform | 80.0 | 72.7 | 25.0 | 46.7 | 41.2 | 42.9 | 56.8 | 49.5 |
| 2. Do not | 20.0 | 27.3 | 58.3 | 46.7 | 29.4 | 57.1 | 27.3 | 41.0 |
| 3. Undecided | - | - | 16.7 | 6.7 | 29.4 | - | 15.9 | 9.5 |
| 6. Emergency Surgery | | | | | | | | |
| 1. Wait | - | - | 8.3 | - | 11.8 | 14.3 | 8.0 | 3.8 |
| 2. No Surgery | 100.0 | 90.0 | 83.3 | 93.3 | 76.5 | 85.7 | 80.7 | 88.6 |
| 3. Undecided | - | 9.1 | 8.3 | 6.7 | 11.8 | - | 11.2 | 7.6 |
| 7. Tell Drug Name | | | | | | | | |
| 1. Tell | 90.0 | 100.0 | 83.3 | 86.7 | 100.0 | 100.0 | 88.8 | 86.7 |
| 2. Don't Tell | 10.0 | - | 16.7 | 13.3 | - | - | 6.1 | 7.6 |
| 3. Undecided | - | - | - | - | - | - | 5.1 | 5.7 |
| 8. Tell Patient Truth | | | | | | | | |
| 1. Tell | 60.0 | 45.5 | 75.0 | 46.7 | 41.2 | 100.0* | 59.5 | 59.0 |
| 2. Don't Tell | 20.0 | 27.3 | - | 20.0 | 35.0 | - | 18.3 | 16.2 |
| 3. Undecided | 20.0 | 27.3 | 25.0 | 33.3 | 23.5 | - | 22.2 | 24.8 |
| 9. Male with Syphilis | | | | | | | | |
| 1. Tell female | 60.0 | 81.8 | 83.3 | 60.0 | 82.4 | 26.3 | 75.9 | 69.2 |
| 2. Don't Tell | 20.0 | 9.1 | - | 26.7 | 5.9 | - | 13.4 | 10.6 |
| 3. Undecided | 20.0 | 9.1 | 16.7 | 13.3 | 11.8 | 16.7 | 10.7 | 20.2 |

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TABLE XIX - CONTINUED

| Question | Texas A & M Pre | Texas A & M Post | Cayuga Pre | Cayuga Post | Dowling Pre | Dowling Post | Total % Pre | Total % Post |
|---|---|---|---|---|---|---|---|---|
| 11. Minor with Leukemia | | | | | | | | |
| 1. Discontinue | 70.0 | 90.9 | 75.0 | 53.3 | 41.2 | 50.0 | 66.4 | 75.0 |
| 2. Continue | 10.0 | 0.0 | 25.0 | 40.0 | 41.2 | 50.0 | 19.0 | 13.5 |
| 3. Undecided | 20.0 | 9.1 | 0.0 | 6.7 | 17.6 | 0.0 | 14.6 | 11.5 |
| 12. Tubal Ligation | | | | | | | | |
| 1. Perform | 60.0 | 54.5 | 25.0 | 46.7 | 41.2 | 50.0 | 55.4 | 47.1 |
| 2. Refuse | 30.0 | 27.3 | 58.3 | 46.7 | 41.2 | 33.3 | 25.6 | 29.8 |
| 3. Undecided | 10.0 | 18.2 | 16.7 | 6.7 | 17.6 | 16.7 | 19.0 | 23.1 |
| 13. Disturbed Employee | | | | | | | | |
| 1. Inform | 60.0 | 36.4 | 33.3 | 40.0 | 29.4 | 33.3 | 32.1 | 23.3 |
| 2. Be Quiet | 10.0 | 27.3 | 25.0 | 33.3 | 29.4 | 33.3 | 38.4 | 41.7 |
| 3. Undecided | 30.0 | 36.4 | 41.7 | 26.7 | 41.2 | 33.3 | 29.4 | 35.0 |
| 14. Blood Transfusion | | | | | | | | |
| 1. Respect Parent | 11.1 | 0.0 | 8.3 | 26.7 | 11.8 | 33.3 | 16.6 | 14.4 |
| 2. Court Order | 88.9 | 100.0 | 83.3 | 73.3 | 88.2 | 66.7 | 71.5 | 81.7 |
| 3. Undecided | - | - | 8.3 | 0.0 | - | - | 12.0 | 3.8 |
| 15. Diet for Nausea | | | | | | | | |
| 1. Give Diet | 70.0 | 45.5 | 66.7 | 53.3 | 76.5 | 100.0 | 64.2 | 64.4 |
| 2. Not Interfere | 20.0 | 9.1 | 8.3 | 26.7 | 5.9 | - | 12.9 | 12.5 |
| 3. Undecided | 10.0 | 45.5 | 25.0 | 20.0 | 17.6 | - | 22.9 | 23.1 |
| 16. Genetic Information | | | | | | | | |
| 1. Tell Sex | 30.0 | 9.1 | 33.3 | 40.0 | 64.7 | 71.4 | 58.8 | 43.8 |
| 2. Refuse | 40.0 | 72.7 | 50.0 | 40.0 | 23.5 | 28.6 | 25.6 | 35.2 |
| 3. Undecided | 30.0 | 18.2 | 16.7 | 20.0 | 11.8 | 0.0 | 15.6 | 21.0 |
| 17. Minor with V.D. | | | | | | | | |
| 1. Treat | 90.0 | 100.0 | 100.0 | 93.3 | 82.4 | 85.7 | 88.3 | 89.5 |
| 2. Don't Treat | - | - | - | - | 11.8 | 14.3 | 5.6 | 6.7 |
| 3. Undecided | 10.0 | 0.0 | 0.0 | 3.7 | 5.9 | 0.0 | 6.1 | 3.8 |
| 18. Artificial Insemination | | | | | | | | |
| 1. Perform | 40.0 | 50.0 | 25.0 | 46.7 | 52.9 | 71.4 | 45.7 | 41.3 |
| 2. Refuse | 50.0 | 27.3 | 33.3 | 20.0 | 23.5 | 14.3 | 27.7 | 26.0 |
| 3. Undecided | 10.0 | 36.4 | 41.7 | 33.3 | 23.5 | 14.3 | 26.5 | 32.7 |
| 19. Food Stamp Program | | | | | | | | |
| 1. Refuse Stamps | 20.0 | 36.4 | 33.3 | 40.0 | 17.6 | 28.6 | 28.3 | 24.8 |
| 2. Give Stamps | 60.0 | 63.6 | 66.7 | 33.3 | 70.6 | 71.4 | 60.0 | 61.9 |
| 3. Undecided | 20.0 | 0.0 | 0.0 | 26.7 | 11.8 | 0.0 | 11.7 | 13.3 |
| 20. Diet for Gagging | | | | | | | | |
| 1. Give Diet | 70.0 | 63.6 | 66.7 | 60.0 | 70.6 | 100.0 | 71.2 | 72.4 |
| 2. Don't | - | - | 16.7 | 13.3 | 11.8 | - | 13.9 | 5.7 |
| 3. Undecided | 30.0 | 36.4 | 16.7 | 26.7 | 17.6 | - | 14.9 | 22.0 |

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TABLE XIX - CONTINUED

| Question | Texas A & M Pre | Texas A & M Post | Cayuga Pre | Cayuga Post | Dowling Pre | Dowling Post | Total % Pre | Total % Post |
|---|---|---|---|---|---|---|---|---|
| 21. Blood Transfusion | | | | | | | | |
| 1. Court Order | 66.7 | 81.8 | 58.3 | 66.7 | 68.8 | 31.3 | 61.6 | 61.9 |
| 2. Be Quiet | 33.3 | 0.0 | 33.3 | 26.7 | - | - | 22.0 | 17.1 |
| 3. Undecided | 0.0 | 18.2 | 8.3 | 6.7 | 35.3 | 28.6 | 16.6 | 21.0 |
| 22. Retarded Female | | | | | | | | |
| 1. Sterilize | 80.0 | 63.6 | 66.7 | 53.3 | 29.4 | 57.1 | 41.4 | 59.0 |
| 2. Don't | 20.0 | 18.2 | 8.3 | 26.7 | 47.1 | 42.9 | 27.5 | 20.0 |
| 3. Undecided | 0.0 | 9.5 | 25.0 | 20.0 | 23.5 | 0.0 | 4.2 | 21.0 |
| Number of Students | 10 | 11 | 12 | 15 | 17 | 9 | 405 | 107 |

TABLE XIX - CONTINUED

| | Oakton | | Harper | | Wheaton | | Bradley | | Queensborough | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Pre | Post | Pre | Post | Pre | Post | Pre | Post | Pre | Post |
| Question | | | | | | | | | | |
| 1. Baby with blockage | | | | | | | | | | |
| 1. Perform surgery | 21.1 | 31.6 | 50.0 | 88.9 | 44.2 | 21.9 | 46.2 | 33.3 | 41.7 | 42.9 |
| 2. Do Not | 52.6 | 42.1 | 10.0 | 11.1 | 36.5 | 53.1 | 38.5 | 60.0 | 41.7 | 42.9 |
| 3. Undecided | 26.3 | 26.3 | 40.0 | 0.0 | 19.2 | 25.0 | 15.4 | 0.0 | 16.7 | 14.3 |
| 2. Nurse show records | | | | | | | | | | |
| 1. Show | 52.6 | 57.9 | - | - | 34.6 | 54.8 | 30.8 | 0.0 | 33.3 | 42.9 |
| 2. Don't show | 26.3 | 15.8 | 30.0 | 77.8 | 63.5 | 41.9 | 61.5 | 100.0 | 50.0 | 42.9 |
| 3. Undecided | 21.1 | 26.3 | 10.0 | 22.2 | 1.9 | 3.2 | 7.7 | 0.0 | 16.7 | 14.3 |
| 3. Assist in Abortion | | | | | | | | | | |
| 1. Assist | 5.3 | 5.3 | 40.0 | 33.3 | 25.0 | 25.0 | 15.4 | 0.0 | 16.7 | 0.0 |
| 2. Not Assist | 78.9 | 63.2 | 50.0 | 55.6 | 67.3 | 62.5 | 76.9 | 80.0 | 75.0 | 85.7 |
| 3. Undecided | 15.8 | 31.6 | 0.0 | 11.1 | 7.7 | 12.5 | 7.7 | 20.0 | 8.3 | 14.3 |
| 4. Retarded Male | | | | | | | | | | |
| 1. Sterilize | 47.4 | 63.2 | 30.0 | 55.6 | 32.7 | 65.6* | 53.8 | 60.0 | 41.7 | 42.9 |
| 2. Do not | 5.3 | 5.3 | 20.0 | 11.1 | 44.2 | 21.9 | 15.4 | 20.0 | 41.7 | 57.1 |
| 3. Undecided | 47.4 | 31.6 | 50.0 | 33.3 | 23.1 | 12.5 | 30.8 | 20.0 | 16.7 | 0.0 |
| 5. Vasectomy | | | | | | | | | | |
| 1. Perform | 52.6 | 42.1 | 60.0 | 55.6 | 67.3 | 59.4 | 30.8 | 0.0 | 50.0 | 28.6 |
| 2. Do not | 10.5 | 42.1 | 30.0 | 33.3 | 17.3 | 31.3 | 53.8 | 80.0 | 41.7 | 57.1 |
| 3. Undecided | 36.8 | 15.8 | 10.0 | 11.1 | 15.4 | 9.4 | 15.4 | 20.0 | 8.3 | 14.3 |
| 6. Emergency Surgery | | | | | | | | | | |
| 1. Wait | 0.0 | 10.5 | - | - | 19.2 | 0.0* | 7.7 | 0.0 | 8.3 | 14.3 |
| 2. Do Surgery | 73.7 | 84.2 | 77.8 | 88.9 | 76.9 | 87.5 | 76.9 | 100.0 | 75.0 | 85.7 |
| 3. Undecided | 26.3 | 5.3 | 22.2 | 11.1 | 3.8 | 12.5 | 15.4 | 0.0 | 16.7 | 0.0 |
| 7. Tell Drug Name | | | | | | | | | | |
| 1. Tell | 94.7 | 84.2 | 70.0 | 66.7 | 88.5 | 84.4 | 92.3 | 100.0 | 100.0 | 85.7 |
| 2. Don't Tell | - | - | 10.0 | 33.3 | 3.8 | 9.4 | 7.7 | 0.0 | - | - |
| 3. Undecided | 5.3 | 15.8 | 20.0 | - | 7.7 | 6.3 | - | - | - | 14.3 |
| 8. Tell Patient Truth | | | | | | | | | | |
| 1. Tell | 73.7 | 47.4 | 40.0 | 55.6* | 55.8 | 71.9 | 61.5 | 60.0 | 50.0 | 42.9 |
| 2. Don't tell | 5.3 | 10.5 | 10.0 | 44.4 | 23.1 | 12.5 | 15.4 | 0.0 | 33.3 | 14.3 |
| 3. Undecided | 21.1 | 42.1 | 50.0 | 0.0 | 21.2 | 15.6 | 23.1 | 40.0 | 16.7 | 42.9 |
| 9. Male with syphilis | | | | | | | | | | |
| 1. Tell female | 63.2 | 63.2 | 70.0 | 66.7 | 63.5 | 68.8* | 69.2 | 100.0 | 75.0 | 57.1 |
| 2. Don't tell | 10.5 | 10.5 | 10.0 | 11.1 | 25.0 | 6.3 | 23.1 | 0.0 | 16.7 | 14.3 |
| 3. Undecided | 26.3 | 26.3 | 20.0 | 22.2 | 11.5 | 25.0 | 7.7 | 0.0 | 8.3 | 28.6 |

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TABLE XIX - CONTINUED

| Question | Oakton | | Harper | | Wheaton | | Bradley | | Queensborough | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Pre | Post | Pre | Post | Pre | Post | Pre | Post | Pre | Post |
| 10. Ghost Surgery | 73.7 | 63.2 | 90.0 | 77.8 | 73.1 | 75.0 | 76.9 | 40.0 | 75.0 | 71.4 |
| 1. Tell patient | 15.8 | 15.8 | 0.0 | 11.1 | 19.2 | 9.4 | 15.4 | 60.0 | 8.3 | 14.3 |
| 2. Don't tell | 10.5 | 21.1 | 10.0 | 11.1 | 7.7 | 15.6 | 7.7 | 0.0 | 16.7 | 14.3 |
| 3. Undecided | | | | | | | | | | |
| 11. Minor with Leukemia | | | | | | | | | | |
| 1. Discontinue | 57.9 | 78.9 | 60.0 | 77.8 | 71.2 | 75.0 | 84.6 | 100.0 | 75.0 | 85.7 |
| 2. Continue | - | - | 20.0 | 22.2 | 11.5 | 9.4 | 15.4 | 0.0 | 25.0 | 0.0 |
| 3. Undecided | 42.1 | 21.1 | 20.0 | 0.0 | 17.3 | 15.6 | - | - | 0.0 | 14.3 |
| 12. Tubal Ligation | | | | | | | | | | |
| 1. Perform | 57.9 | 42.1 | 60.0 | 55.6 | 61.5 | 56.3 | 46.2 | 20.0 | 50.0 | 14.3 |
| 2. Do Not | 10.5 | 26.3 | 20.0 | 33.3 | 15.4 | 15.6 | 46.2 | 60.0 | 41.7 | 42.9 |
| 3. Undecided | 31.6 | 31.6 | 20.0 | 11.1 | 23.1 | 28.1 | 7.7 | 20.0 | 8.3 | 42.9 |
| 13. Disturbed Employee | | | | | | | | | | |
| 1. Inform | 31.6 | 21.1 | 30.0 | 22.2 | 25.0 | 12.9 | 30.8 | 0.0 | 16.7 | 28.6 |
| 2. Be Quiet | 31.6 | 26.3 | 30.0 | 55.6 | 50.0 | 48.8 | 46.2 | 100.0 | 50.0 | 42.9 |
| 3. Undecided | 36.8 | 52.6 | 40.0 | 22.2 | 25.0 | 38.7 | 23.1 | 0.0 | 33.3 | 28.6 |
| 14. Blood Transfusion | | | | | | | | | | |
| 1. Respect Parent | 42.1 | 21.1 | 0.0 | 11.1 | 13.5 | 12.5 | 15.4 | 0.0 | 16.7 | 0.0 |
| 2. Court Order | 31.6 | 68.4 | 80.0 | 88.9 | 69.2 | 81.3 | 69.2 | 100.0 | 66.7 | 100.0 |
| 3. Undecided | 26.3 | 10.5 | 10.5 | 0.0 | 17.3 | 6.3 | 15.4 | 0.0 | 16.7 | 0.0 |
| 15. Diet for Nausea | | | | | | | | | | |
| 1. Give Diet | 73.7 | 73.7 | 60.0 | 44.4 | 57.7 | 71.9 | 46.2 | 20.0 | 75.0 | 85.7 |
| 2. Not Interfere | 10.5 | 10.5 | 10.0 | 11.1 | 15.4 | 9.4 | 15.4 | 40.0 | - | - |
| 3. Undecided | 15.8 | 15.8 | 30.0 | 44.4 | 26.9 | 18.8 | 38.5 | 40.0 | 25.0 | 14.3 |
| 16. Genetic Information | | | | | | | | | | |
| 1. Tell sex | 42.1 | 47.4 | 30.0 | 44.4 | 50.0 | 46.9 | 76.9 | 80.0 | 50.0 | 28.6 |
| 2. Refuse | 31.6 | 26.3 | 30.0 | 33.3 | 38.5 | 31.3 | 15.4 | 0.0 | 16.7 | 42.9 |
| 3. Undecided | 26.3 | 26.3 | 40.0 | 22.2 | 11.5 | 21.9 | 7.7 | 20.0 | 33.3 | 28.6 |
| 17. Minor with V. D. | | | | | | | | | | |
| 1. Treat | 89.5 | 89.5 | 80.0 | 77.8 | 94.2 | 93.8 | 84.6 | 60.0 | 75.0 | 85.7 |
| 2. Don't treat | 0.0 | 10.5 | 10.0 | 22.2 | 3.8 | 6.3 | 0.0 | 40.0 | 16.7 | 0.0 |
| 3. Undecided | 10.5 | 0.0 | 10.0 | 0.0 | 1.9 | 0.0 | 15.4 | 0.0 | 8.3 | 14.3 |
| 18. Artificial Insemination | | | | | | | | | | |
| 1. Perform | 36.8 | 36.8 | 30.0 | 33.3 | 42.3 | 45.2 | 30.8 | 0.0 | 41.7 | 42.9 |
| 2. Refuse | 15.8 | 26.3 | 20.0 | 22.2 | 23.1 | 19.4 | 46.2 | 80.0 | 33.3 | 42.9 |
| 3. Undecided | 23.7 | 18.4 | 50.0 | 44.4 | 1.9 | 0.0 | 23.1 | 20.0 | 25.0 | 14.3 |

TABLE XIX - CONTINUED

| Question | Oakton | | Harper | | Wheaton | | Bradley | | Queensborough | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Pre | Post | Pre | Post | Pre | Post | Pre | Post | Pre | Post |
| 19. Food Stamp Program | | | | | | | | | | |
| 1. Refuse Stamps | 26.3 | 19.1 | 30.0 | 0.0 | 25.5 | 28.1 | 15.4 | 20.0 | 16.7 | 14.3 |
| 2. Give Stamps | 57.9 | 57.9 | 60.0 | 88.9 | 56.9 | 62.5 | 69.2 | 80.0 | 75.0 | 71.4 |
| 3. Undecided | 15.8 | 26.3 | 10.0 | 11.1 | 17.7 | 9.4 | 15.4 | 0.0 | 8.3 | 14.3 |
| 20. Diet for Gagging | | | | | | | | | | |
| 1. Give Diet | 73.7 | 73.7 | 40.0 | 66.7 | 71.2 | 77.4 | 61.5 | 60.0 | 50.0 | 85.7 |
| 2. Don't | 10.5 | 5.3 | 20.0 | 22.2 | 13.5 | 3.2 | 15.4 | 0.0 | 41.7 | 0.0 |
| 3. Undecided | 15.8 | 21.1 | 40.0 | 11.1 | 15.4 | 19.4 | 23.1 | 40.0 | 8.3 | 14.3 |
| 21. Blood Transfusion | | | | | | | | | | |
| 1. Court Order | 26.3 | 47.4 | 70.0 | 55.6 | 51.9 | 56.3 | 61.5 | 60.0 | 58.3 | 85.7 |
| 2. Be Quiet | 42.1 | 31.6 | 10.0 | 0.0 | 26.9 | 18.8 | 15.4 | 40.0 | 25.0 | 0.0 |
| 3. Undecided | 31.6 | 21.1 | 20.0 | 44.4 | 21.2 | 25.0 | 23.1 | 0.0 | 16.7 | 14.3 |
| 22. Retarded Female Sterilization | | | | | | | | | | |
| 1. Sterilize | 52.6 | 63.2 | 50.0 | 55.6 | 36.5 | 62.5* | 53.8 | 60.0 | 50.0 | 42.9 |
| 2. Don't | 10.5 | 0.0 | 20.0 | 33.3 | 36.5 | 12.5 | 23.1 | 20.0 | 33.3 | 57.1 |
| 3. Undecided | 36.8 | 36.8 | 30.0 | 11.1 | 26.9 | 25.0 | 23.1 | 20.0 | 16.7 | 0.0 |
| Number of Students | 19 | 19 | 10 | 9 | 52 | 32 | 13 | 5 | 12 | 7 |

*Indicates significance of .05 or better between pre- and post-tests

TABLE XIX - CONTINUED

| | Oakton | | Harper | | Wheaton | | Bradley | | Queensborough | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Pre | Post | Pre | Post | Pre | Post | Pre | Post | Pre | Post |
| Question | | | | | | | | | | |
| 23. Individual interest is more important than society's interest. | | | | | | | | | | |
| SA | 36.8 | 31.6 | 20.0 | 33.3 | 19.2 | 9.7 | 7.7 | 0.0 | 45.5 | 0.0* |
| A | 26.3 | 31.6 | 80.0 | 66.7 | 51.9 | 48.4 | 23.1 | 40.0 | 0.0 | 85.7 |
| U | 21.1 | 21.1 | - | - | 17.3 | 29.0 | 15.4 | 20.0 | 27.3 | 0.0 |
| D | 25.0 | 15.8 | - | - | 9.6 | 12.9 | 46.2 | 40.0 | 27.3 | 14.3 |
| SD | 10.5 | 0.0 | - | - | 1.9 | 0.0 | 7.7 | 0.0 | - | - |
| 24. Under 16 have ability to make decisions | | | | | | | | | | |
| SA | 15.8 | 5.3 | 0.0 | 11.1 | 3.8 | 9.7* | 7.7 | 0.0 | - | - |
| A | 31.6 | 31.6 | 20.0 | 44.4 | 28.8 | 58.1 | 30.8 | 100.0 | 33.3 | 14.3 |
| U | 31.6 | 42.1 | 30.0 | 11.1 | 26.9 | 19.4 | 23.1 | 0.0 | 16.7 | 57.1 |
| D | 15.8 | 21.1 | 40.0 | 33.3 | 36.5 | 9.7 | 38.5 | 0.0 | 33.3 | 28.6 |
| SD | 5.3 | 0.0 | 10.0 | 0.0 | 3.8 | 3.2 | - | - | 16.7 | 0.0 |
| 25. When individual and society conflict, society is more important | | | | | | | | | | |
| SA | 10.5 | 5.3 | - | - | 0.0 | 6.5 | 0.0 | 20.0 | 8.3 | 0.0 |
| A | 5.3 | 5.3 | 10.0 | 0.0 | 15.7 | 22.6 | 38.5 | 20.0 | 8.3 | 0.0 |
| U | 10.5 | 36.8 | 10.0 | 0.0 | 29.4 | 25.8 | 23.1 | 40.0 | 50.0 | 14.3 |
| D | 63.2 | 47.4 | 50.0 | 77.8 | 47.1 | 41.9 | 30.8 | 20.0 | 33.3 | 71.4 |
| SD | 10.5 | 5.3 | 30.0 | 22.2 | 7.8 | 3.2 | 7.7 | 0.0 | 0.0 | 14.3 |
| 26. Right to impose one's values on others | | | | | | | | | | |
| SA | - | - | - | - | - | - | 7.7 | 0.0 | 8.3 | 0.0 |
| A | 10.5 | 10.5 | - | - | 3.8 | 0.0 | - | - | - | - |
| U | 26.3 | 10.5 | 10.0 | 11.1 | 3.8 | 0.0 | 0.0 | 40.0 | - | - |
| D | 21.1 | 42.1 | 60.0 | 22.2 | 38.5 | 35.5 | 30.8 | 20.0 | 16.7 | 42.9 |
| SD | 42.1 | 36.8 | 30.0 | 66.7 | 53.8 | 64.5 | 61.5 | 40.0 | 75.0 | 57.1 |
| 27. Over 18 have right to refuse medical care | | | | | | | | | | |
| SA | 42.1 | 21.1 | 40.0 | 44.4 | 36.5 | 38.7 | 46.2 | 40.0 | 41.7 | 42.9 |
| A | 31.6 | 52.6 | 50.0 | 44.4 | 50.0 | 41.9 | 38.5 | 20.0 | 50.0 | 28.6 |
| U | 21.1 | 26.3 | - | - | 7.7 | 9.7 | 7.7 | 20.0 | 8.3 | 14.3 |
| D | 5.3 | 0.0 | - | - | 3.8 | 9.7 | 0.0 | 20.0 | 0.0 | 14.3 |
| SD | | | 10.0 | 11.1 | 1.9 | 0.0 | 7.7 | 0.0 | - | - |

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TABLE XIX - CONTINUED

| | Oakton | | Harper | | Wheaton | | Bradley | | Queensborough | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Pre | Post | Pre | Post | Pre | Post | Pre | Post | Pre | Post |
| Question 28 | | | | | | | | | | |
| Persons have the right to make decisions for their children under 18 | | | | | | | | | | |
| SA | 5.3 | 5.3 | 10.0 | 11.1 | 11.5 | 6.5 | 7.7 | 0.0 | 33.3 | 0.0 |
| A | 26.3 | 42.1 | 30.0 | 44.4 | 46.2 | 25.8 | 38.5 | 20.0 | 25.0 | 57.1 |
| U | 52.6 | 31.6 | 40.0 | 33.3 | 23.1 | 41.9 | 30.8 | 40.0 | 25.0 | 28.6 |
| D | 10.5 | 15.8 | 20.0 | 11.1 | 19.2 | 25.8 | 23.1 | 40.0 | 16.7 | 14.3 |
| SD | 5.3 | 5.3 | - | - | - | - | - | - | - | - |
| Question 29 | | | | | | | | | | |
| Health care personnel are trained to make Ethical decisions | | | | | | | | | | |
| SA | 10.5 | 0.0 | 0.0 | 11.1 | 5.9 | 3.2 | - | - | - | - |
| A | 10.5 | 15.8 | 40.0 | 22.2 | 17.6 | 16.1 | 8.3 | 0.0 | 18.2 | 42.9 |
| U | 26.3 | 10.5 | 40.0 | 11.1 | 19.6 | 12.9 | 16.7 | 20.0 | 36.4 | 0.0 |
| D | 31.6 | 47.4 | 20.0 | 55.6 | 49.0 | 54.8 | 50.0 | 80.0 | 45.5 | 14.3 |
| SD | 21.1 | 26.3 | - | - | 7.8 | 12.9 | 25.0 | 0.0 | 0.0 | 42.9 |
| Question 30 | | | | | | | | | | |
| It is all right for doctors to withhold information from rational patients. | | | | | | | | | | |
| SA | 5.3 | 0.0 | - | - | 1.9 | 0.0 | 15.4 | 0.0 | 8.3 | 0.0 |
| A | | | - | - | 3.8 | 3.2 | 15.4 | 20.0 | - | - |
| U | 5.3 | 5.3 | 10.0 | 11.1 | 3.8 | 6.5 | 0.0 | 20.0 | 0.0 | 14.3 |
| D | 47.4 | 42.1 | 40.0 | 44.4 | 48.1 | 25.8 | 30.8 | 40.0 | 41.7 | 42.9 |
| SD | 42.1 | 52.6 | 50.0 | 44.4 | 42.3 | 64.5 | 38.5 | 20.0 | 50.0 | 42.9 |
| Number of Respondents | 19 | 19 | 10 | 9 | 52 | 32 | 13 | 5 | 12 | 7 |

*Indicates significance of .05 or better between pre- and post-tests

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Significant differences having been found in only six instances of the pre- and post-tests of eight colleges on thirty questions, tended to support the null hypothesis. That is, that there is no significant difference in the response choices of students between the pre- and post-tests.

There were four questions on the survey which involved the same issues but which had the sex of the subject of the questions changed. They were:

Question 4 and Question 22 involve a retarded person and the issue of sterilization for that person. Question Four had a male subject and Question 22 had a female subject. Eighty-seven and nine-tenths percent of those answering to sterilize on Question Four would also answer to sterilize on Question 22. With four degrees of freedom, a zero percent level of significance was calculated.

Question 5 and Question 12 involve a voluntary sterlization without the spouse's knowledge. The association of responses to these two cases also yielded significant results. Question Five had a male subject and Question 12 had a female subject. Eighty-seven percent of those responding yes to the sterilization procedure in one question would do so in the other. With four degrees of freedom, a significance of zero percent was calculated.

Question 15 and Question 20 involve giving a diet to a person to control physical distress without the physician's permission to do so. The responses to these questions yielded a significance better than .05. In giving the diet to the patient, 73.6 percent of those who would re-

spond, "give the diet," in Question 15 would also respond to give the diet in Question 20. With four degrees of freedom, a zero level of significance was calculated.

Question 14 and Question 21 involve a blood transfusion for a newborn infant to which the parents are opposed. Both questions involve the same issue but the role of the person requesting the court order is changed. Eighty-nine percent of those answering to get a court order in Question 14 would also answer to get the court order in Question 21. Forty-one and two-tenths percent of those who were undecided on one would also be undecided on the other. With four degrees of freedom, a zero percent level of significance was calculated.

# CHAPTER V

## SUMMARY AND CONCLUSIONS

### Summary

The findings in this study seem to indicate that there is no discernable pattern of responses to the questionnaire given by students registered in medical ethics courses. Empirical data, however, showed that there would seem to be a relationship between questions which were paired for similarity. Four pairs of specific case questions and two pairs of questions having one specific and one general question exhibited signficant differences when they were statistically treated.

Questions which were concrete and similar in nature were compared and indicated a pattern of association in their responses. They were:

Questions 4 and 22; 5 and 12; 15 and 20; and 14 and 21. The paired questions logically related to the same issues. In the pairings, it was found that people tended to respond to each set of questions in the same way.

Questions which were concrete and questions which were general in nature were also compared and indicated a pattern of association in the responses. Questions 11 and 27 and Question 8 and 30 were compared. Again, significant associations were found in the responses to these questions. Both the concrete and the similar, and the concrete and general questions were compared on the pre-test only. As was explained earlier in this study, the responses to the post-test were one-fourth

the original sample on the pre-test. Post-test responses were considered too small to be useful for statistical treatment.

Statistical analysis of the case questions which were dissimilar and the general questions which clustered around similar issues was not done since the construction of a factor analysis needed to do so was not part of this study.

The total percentage of responses on the pre-test indicated that some choices were clearly preferred than others. Answers which received over 80 percent of the total responses on the pre-test were:

Question 4 - to give a minor surgery without parental permission.

Question 7 - to tell the patient the name of the drug he is taking.

Question 17- to treat a minor with veneral disease without the parents' knowledge.

Answers which received more than 70 percent of the total response to questions, but less than 80 percent on the pre-test were:

Question 9 - to tell the female of the fiance's syphilitic condition.

Question 10- to tell the patient of "ghost surgery."

Question 14- to get a court order to give a child life saving blood transfusions to which the parents do not agree.

Question 20- to give a patient a diet for gagging without a physician's order.

It is interesting to note that some of the above selections have paired questions which are similar in nature.

Choices which showed this majority preference in responses must be viewed with caution since students may have been unaware of the underlying question or problems incorporated in the dilemma. It may be safe to conclude, however, that students did not regard the above questions as issues in decision making since a high percentage of them chose the same answer.

Conclusions

Acceptance of societal dicta was addressed in Chapter II of this study. In the discussion of the Roobs, Yahoos and Babbitts, it was seen that an unquestioning attitude on the part of the general public can be a threat to freedom. For example, after the First World War, it was generally believed that immigrants from Italy, China, Japan, and Eastern Europe had lower intelligences than those from Britain, Scotland and Ireland because their I.Q. tests indicated a low level of achievement. No one thought to question the validity of giving and English language test to non-English speaking people. The conclusion widely accepted was that non-English speaking people were of lower ability, therefore less desireable, therefore lower quotas for non-English speakers to immigrate were believed reasonable (Nova).

The same type of logic employed in the above example might lead the researcher to conclude that a majority of the percentages of responses to particular questions indicates a non-issue. At this point, those questions which received a majority of the percentage of responses cannot indicate that those questions involved non-issues.

The number of responses which were undecided also poses an analyti-

cal problem. On the one hand, this answer option may be indicative of a pattern of retreat (Appendix F) for those not wishing to confront a difficult problem; on the other, this response may be indicative of the students' need for more information on which to base his or her judgement. Those who chose not to answer the question at all may be included in this group. On the pre-test, the highest number of missing observations was on Question 29, "Health care professionals are trained in ethical decision making." This same question had the highest number of missing observations on the post-test. There is no way to determine if retreat was the reason for the undecided response The possibility of the undecided response as an indication of growth may also be projected. If there was a shift from a particular solution on the pre-test to an undecided choice on the post-test, this may indicate the revelation of a problem which the student did not previously recognize and to which the student would like to devote more thought. The same may be true of those who shifted from undecided to a positive or negative answer.

Of greater interest for discussion purposes in airing ethical dilemmas were those answers to questions which displayed a distribution of 20 percent or more among the three possible choices offered. That is, where there was a split among the possible solutions given, agreement among respondents was not definite and therefore a dilemma, that is, a situation involving a choice among equally undesirable alternatives, was seen to surface. Using the total percentages from all the colleges participating in the pre-test (Table XIX), a split of this

type was calculated in Questions 1, 2, 3, 4, 5, 8, 11, 12, 15, 16, 18, 19, 21 and 22.

The survey questions and the pre- post-test responses indicated that no pattern seemed to emerge in questions which were conceptually clustered. Although the existence of a pattern and the responses to questions which were clustered by general concepts cannot be demonstrated empirically, logically, some assertions can be made on the basis of the findings.

The absence of a clear pattern of responses to the items on the instrument seems to indicate that the responses were indeed indicative of the state of moral decision making concerning issues of health. Part of the reason for this may be due to the state of public knowledge and commitment to these issues. In some states, for example, brain death has been recognized as legal death. This type of decision is usually arrived at in open dialogue with the public aware of the various points of view before a law is enacted. This also allows time for a new norm to be incorporated into one's value framework. However, not all states subscribe to this definition of death. The general public would not have had time to weigh alternatives if no alternatives were made manifest. Therefore, in a cross country analysis, the ambivalence emerges as a patternless response.

Technology has advanced at such a rapid rate that institutions, religious groups and general philosophies may not have had time to become formalized on issues regarding health care. At one time, for example, childless couples were committed to remain so by nature; with

artificial insemination and "test tube" implantation, couples have a choice which they did not have previously. New procedures require time to build a climate of understanding and acceptance. The responses to the survey may indicate that enough time and/or enough information has not been given to the public.

A case in point is the issue of amniocentesis. It was commonly thought that one of the recommendations resulting from the procedure would be abortion. On that basis the Roman Catholic Church frowned upon the procedure itself. However, in at least one Catholic hospital in the Chicago metropolitan area, amniocentesis is used on mothers who show RH factors. This is done in order to insure preparation for the possibility of a blood transfusion if the baby is born with the complication. Where on the one hand the procedure was seen as opposing nature, on the other it was seen as supporting it. Both groups of thinkers, however, declare that their religiosity determines their decisions in this matter.

The same conflict occurs in a discussion of life-saving measures for hopelessly ill patients where the quality and dignity of life is in balance. One group will refuse life-saving measures because of the lack of dignity of life, while another will promote such measures on the same basis. The decisions and their rationale are not clearly delinieated. This lack of clarity emerged in the mixed responses to the questionnaire.

All of us, at one time or another, are consumers of health care delivery. In free enterprise systems caveat emptor (let the buyer

beware). The large increase of medical malpractise cases in this country has created a new principle, caveat venditor (let the seller beware), which may be reflected in the caution the health care professionals and relations responded to questions involving consent.

Specialization in colleges and universities values precision in the acquisition of information. The student who emerges from this type of training, "finds frustration in the plurality and contradictoriness of societal wishes" (Hoskins and Shannon, p.150). It is precisely this frustration which either results in creative change or in retreat. It is the role of humanities education to interface with professional education in order to rehumanize the technical curricula most vocationalists and professionalists are exposed to.

The courage with which a student approaches the formulation of new value constructs cannot be minimized. It is much easier for the student and instructor to have answers. The instructor must realize that he or she is also involved in decision making and that to guide the student toward a particular view is the negation of personal commitment arrived at through intellectual growth and maturity. To have the right answer may not be desireable. In fact, this thinking may be indicative of a lower level of development (Kohlberg, Perry).

> Today, as in Socrates' day, there is a need for midwives for ideas. The labors of the mind in producing such ideas appear overwhelming in the eyes of many. The effort required alone appears sufficient reason for many to practise a rigorous intellectual contraception (Pecorino, p.16, 1975).

This type of midwifery could be learned through humanities education.

Indeed, it may be that finding the "right answers" is not the ultimate purpose of humanistic training at all.

> (Gertrude Stein) turned to Alice and murmured, 'What is the answer?' Alice, unable to answer, remained silent. Gertrude said, 'In that case, what is the question?' (Mellow, p. 468).

Recommendations

Variables which may have contributed to differences noted in the findings may have been the result of the teaching method adopted by the instructor, the level of intellectual and/or emotional maturity of the student, text selection, geographic location or commitment to a general theory of ethics. These variables were not controlled in this study. It is therefore recommended that

1. Information regarding text, and teaching method of the instructor be included in the demographics.
2. A statement on the part of the instructor giving his or her overall evaluation of the emotional and intellectual maturity of the class taking the survey be included.
3. Further follow-up with instructors, perhaps in the form of an interview, should be done. This will provide information about the effectiveness of the instrument in drawing out issues and questions in the classroom.
4. Students using the instrument should be interviewed in order to discover the reasons for the student giving one answer rather than another. At this point in time, no general conclusions about the nature of decision making

or the reasoning process involved in those choices can be asserted.

5. A larger sample should be used so that as many variables as possible may be isolated. The study should therefore include a longer period of time and a larger sampling of the population.

6. The findings indicated that there was little pattern in the solution to the problems posed on the instrument. If education is to encourage commitment by having students derive a sense of community in decision making, then an affirmation of the existence of dilemmas by the absence of consensus may add to that sense of community. That is, it may be comforting for students to know that others are as confused about the issues as they are.

> The individual may himself derive a sense of community by observing that others are like himself in that their cares and quandaries are like his own. His sense of membership is enormously strengthened, however, if in addition he experiences himself as <u>seen</u> by others in the same way (Perry, p. 213).

Another recommendation that students be informed of the lack of consensus on issues appearing on the survey is therefore made.

<u>Strategies for Diffusion, Implementation and Change</u>

In the recommendations section above, further study and change of the instrument was discussed. The diffusion of the information gathered in this study can be achieved by:

1. Providing all participating instructors with the findings of

this study.

2. Contacting instructors for evaluation of the usefulness of the instrument.
3. Announcing the completion of the work in the bulletin for the Society of Philosophy and Medicine.
4. Continuing dialogue on the instrument and findings in several projected symposia. The symposia now in the planning stages include people in the health care professions, vocational and humanities instructors as well as the general public. These symposia are sponsored by the Illinois Humanities Council in order to foster interface between academicians and the general public.

The findings of this study are valuable in that, to some extent, they seem to document the diverse attitudes concerning ethical issues in health care delivery today. One of the problems specialists face is the familiarity with issues which tends to jade their recognition of the non-familiarity of the general public with the same issues. "Social decision making may be facilitated by this clearer view of individual attitudes" (Mix and Quinn, p. 83). The findings may facilitate a starting point for making decisions which have heretofore been "made in the total absence of information about personal attitudes" (op. cit.).

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## APPENDIX A

This survey is an attempt to assess attitudes concerning decision making. Your answers will not be graded since there is no right or wrong answer. Answer the questions as honestly as you can - what you probably do in each situation - not what you think you ought to do.

1. You have given birth to a baby who is terribly deformed. It is discovered that it has a blockage of the stomach which can be corrected by simple surgery. Would you
   a) give permission for surgery_____
   b) withhold permission for the surgery_____

2. You are a nurse's aide and are wheeling a patient from his room to another part of the hospital. The patient asks to see his charts while you are pushing him down the hall. Would you
   a) Let the patient see the chart____
   b) Tell the patient to ask the doctor for permission_____

3. You are a surgical nurse on staff at a hospital and are asked to assist in an elective abortion. You personally do not believe in abortion. Would you
   a) Assist in the abortion____
   b) Not assist in the abortion_____

4. Your physician, who you have know for years and trust has recommended an immediate mastectomy. Would you
   a) Do as he recommends_____
   b) Ask to think about it for a while_____

5. You are a physician on emergency and a teenager has been brought in severely injured. You cannot get in touch with her parents in order to get permission to perform surgery. Would you
   a) Wait until you get in touch with her parents_____
   b) Operate anyway_____

6. You are a paramedic on emergency call and an accident has occurred. The person you are assisting is severely injured. His wife tells you that he is suffering from terminal cancer and not to resuscitate him, but to let him die peacefully. Would you
   a) Resuscitate_____
   b) Not resuscitate_____

7. You are a nurse in a hospital dispensing medication to a patient. The patient asks you the name of the drug he is receiving. Would you
   a) Tell the patient the name of the drug_____
   b) Tell the patient to ask the doctor for that information_____

APPENDIX A CONTINUED

8. You are a physician who has discovered your patient is terminal.
   a) Tell the patient_____
   b) Tell the family and let them decided_____

9. You are a general practitioner who has had two young people as patients for many years. You know both their families. The young man is going to marry the young woman. He has syphilis and refuses to tell his fiance. Would you
   a) Tell the young woman_____
   b) Respect the young man's wishes_____

10. You have a 17 year old daughter who has leukemia. She wishes no more treatment but the doctor says medical science will benefit by learning more for future victims of the disease. Would you
   a) Discontinue treatment_____
   b) Continue treatment_____

11. A fourteen year old has come to you for an abortion. You
   a) Refuse to do the abortion until she has parental consent_____
   b) Perform the abortion_____

12. A woman has asked to have her tubes tied after he third baby. She is 27 years old. Her husband tells you that he will divorce her if she has the tubal ligation. Would you
   a) Do as the woman requests_____
   b) Ask to see the wife and husband together and then decided_____

13. A 40 year old man has come to you for a vasectomy. He has a mistress and does not want his wife to know about the vasectomy. Would you
   a) Perform the vasectomy
   b) Refuse until you see the husband and wife together_____

14. You are a staff psychiatrist who has been treating an employe for mental disturbances. The employe has been recommended for a sensitive job in the establishment. You think it would be detrimental. Would you
   a) Confidentially inform the president_____
   b) Keep your mouth shut_____

15. The parents of a newborn have refused to have their child receive a life-saving blood exchange transfusion. Would you
   a) Respect the parents wishes_____
   b) Get a court order to perform the transfusion

16. During the past few months you notice that a surgeon has been drunk

APPENDIX A CONTINUED

In the operating room. You have reported him, but nothing has been done. He arrives for surgery indicating he is a little tipsy. Would you
a) Keep quiet since you reported him anyway_____
b) Call his supervisor_____

17. You are a genetics counsellor. A couple comes to you to find out if the fetus is male or female. They already have three children- all girls. You know she will have an abortion if this is a female. Would you
a) Refuse to tell them the sex of the child_____
b) Tell them the sex_____

18. You operate a sperm bank. An attractive woman in her early thirties requests an artificial insemination. She is not married. Would you
a) Perform the artificial insemination____
b) Refuse_____

19. You are director of a government food stamp program. You decided that children of those receiving stamps must have a blood test since they have a higher incidence of iron deficiency anemia. When the mothers come in you have public health nurses take samples. One refuses. Do you
a) Refuse to give her the stamps____
b) Give her the stamps_____

APPENDIX B
BREAKDOWN OF SURVEY RESPONSES
BY CURRICULUM, AGE & SEX

| Question No. | | Curriculum | | Sex | | Age | | |
|---|---|---|---|---|---|---|---|---|
| | | LAS | Vocational | Male | Female | 17-24 | 25-34 | 35+ |
| 1. | Answer a | 73.6 | 92.3 | 92.9 | 93.3 | 85.3 | 23.6 | 50.0 |
| | Answer b | 26.4 | 7.7 * | 7.1 | 19.3 | 6.7 | 14.7 | 50.0 * |
| 2. | Answer a | 28.8 | 4.3 | 17.5 | 10.3 | 15.6 | 8.6 | 10.5 |
| | Answer b | 71.2 | 95.7 * | 82.5 | 89.7 | 84.4 | 91.4 | 89.5 |
| 3. | Answer a | 45.3 | 53.3 | 49.1 | 51.1 | 46.7 | 60.0 | 50.0 |
| | Answer b | 54.7 | 46.7 | 50.9 | 48.9 | 53.3 | 40.0 | 50.0 |
| 4. | Answer a | 13.2 | 22.2 | 23.6 | 15.9 | 21.1 | 21.2 | 5.0 |
| | Answer b | 86.8 | 77.8 | 76.4 | 84.1 | 78.9 | 78.8 | 95.0 |
| 5. | Answer a | 75.5 | 84.4 | 80.4 | 81.6 | 83.3 | 81.8 | 70.0 |
| | Answer b | 24.5 | 15.6 | 19.6 | 18.4 | 16.7 | 18.2 | 30.0 |
| 6. | Answer a | 22.6 | 31.5 | 35.1 | 23.9 | 25.6 | 34.3 | 30.0 |
| | Answer b | 77.4 | 68.5 | 64.9 | 75.1 | 74.4 | 65.7 | 70.0 |
| 7. | Answer a | 69.8 | 64.8 | 72.2 | 63.2 | 72.4 | 62.9 | 47.4 |
| | Answer b | 30.2 | 35.2 | 27.8 | 36.8 | 27.6 | 37.1 | 52.6 |
| 8. | Answer a | 69.2 | 57.1 | 66.1 | 58.6 | 63.3 | 58.8 | 57.9 |
| | Answer b | 30.8 | 42.9 | 33.9 | 41.4 | 36.7 | 41.2 | 42.1 |
| 9. | Answer a | 45.3 | 46.7 | 32.1 | 55.2 | 33.7 | 58.8 | 80.0 |
| | Answer b | 54.7 | 53.3 | 67.9 | 44.8 * | 66.3 | 41.2 | 20.0 * |
| 10. | Answer a | 52.9 | 48.9 | 44.6 | 53.5 | 51.7 | 44.1 | 52.6 |
| | Answer b | 47.1 | 51.6 | 55.4 | 46.3 | 48.3 | 55.9 | 47.4 |
| 11. | Answer a | 52.9 | 71.4 | 71.9 | 60.0 | 65.6 | 71.9 | 50.0 |
| | Answer b | 47.1 | 28.6 * | 28.1 | 40.0 | 34.4 | 28.1 | 50.0 |
| 12. | Answer a | 48.1 | 39.1 | 39.3 | 44.3 | 34.8 | 45.7 | 70.0 |
| | Answer b | 51.9 | 60.9 | 60.7 | 55.7 | 65.2 | 54.3 | 30.0 * |
| 13. | Answer a | 62.7 | 62.6 | 64.3 | 61.4 | 63.6 | 55.9 | 70.0 |
| | Answer b | 37.3 | 37.4 | 35.7 | 38.4 | 36.4 | 44.1 | 30.0 |
| 14. | Answer a | 72.5 | 57.1 | 64.3 | 61.6 | 70.5 | 45.7 | 67.9 |
| | Answer b | 27.5 | 42.9 | 35.7 | 38.4 | 29.5 | 54.3 | 42.1 * |
| 15. | Answer a | 27.5 | 22.7 | 27.3 | 22.6 | 25.9 | 26.6 | 15.0 |
| | Answer b | 72.5 | 77.3 | 72.7 | 77.4 | 74.1 | 73.5 | 85.0 |
| 16. | Answer a | - | 5.5 | 7.3 | 1.1 | 3.4 | 5.9 | - |
| | Answer b | 100.0 | 94.5 | 92.7 | 98.9 | 96.6 | 94.1 | 100.0 |
| 17. | Answer a | 13.7 | 26.4 | 20.0 | 23.0 | 21.3 | 29.4 | 10.5 |
| | Answer b | 86.3 | 73.6 | 80.0 | 77.0 | 78.7 | 70.6 | 89.5 |
| 18. | Answer a | 59.6 | 80.4 | 73.2 | 72.7 | 73.0 | 77.1 | 65.0 |
| | Answer b | 40.0 | 19.6 * | 26.8 | 27.3 | 27.0 | 22.9 | 35.0 |
| 19. | Answer a | 29.4 | 31.1 | 40.0 | 24.4 | 39.1 | 11.4 | 26.3 |
| | Answer b | 70.6 | 68.9 | 60.0 | 75.6 | 60.9 | 88.6 | 73.7 * |

N = 140 Respondents

* .05 significance or better

PW:mk

Total findings of nineteen questions on initial survey instrument using 140 subjects.

APPENDIX C
REVISED INSTRUMENT

This survey is an attempt to assess attitudes concerning decision-making. In all the cases below, you are to put yourself in the role of the decision-maker. There is no right or wrong answer. Answer the questions as honestly as you can. Try not to be concerned about legal issues in your answers.

1. You have given birth to a baby without limbs. The baby also has a blockage of the stomach which can be corrected by simple surgery. Without surgery, the baby will not survive. Would you

(5) _____1. Give permission for the surgery
_____2. Not give permission for the surgery
_____3. Undecided

2. You are a nurse taking a patient from his room to x-ray. The patient asks to see his charts while you are pushing him down the hall. Would you

(6) _____1. Let the patient see his chart
_____2. Not let the patient see his chart
_____3. Undecided

3. You are a surgical nurse on staff of a hospital and are asked to assist in an elective abortion. You personally believe that abortion is murder. Would you

(7) _____1. Assist in the abortion
_____2. Not assist in the abortion
_____3. Undecided

4. You have a mentally retarded son who is physically mature. You are concerned that he will father children with the same deficiency. He has been institutionalized since he was five. Would you

(8) _____1. Have him surgically sterilized
_____2. Not have him surgically sterilized
_____3. Undecided

5. A man in his late twenties has come to you for a vasectomy. He has children and is married. He does not want his wife to know about the vasectomy since she disapproves. As the physician would you

(9) _____1. Perform the vasectomy
_____2. Not perform the vasectomy
_____3. Undecided

6. You are a doctor on the emergency ward of a hospital. A teenager has been brought in severely injured. You cannot get in touch with her parents in order to get permission to perform surgery. Would you

(10)____1. Wait until you get in touch with the parents
____2. Operate anyway
____3. Undecided

7. You are a nurse in a hospital dispensing medication to a patient. The patient asks the name of the drug he is receiving. Would you

(11)____1. Tell the patient the name of the drug
____2. Not tell the patient the name of the drug
____3. Undecided

8. You are a physician who has discovered your patient has terminal cancer. You feel the patient should be told the truth but the family doesn't want the patient to know the truth. Would you

(12)____1. Tell the patient
____2. Not tell the patient
____3. Undecided

9. You are a general practitioner who has had two young people as patients for many years. You have treated them and their respective families. They have decided to marry and come to you for their blood tests. The tests reveal the man has syphilis. You know they have had sexual relations. The man refuses to tell his fiance he has syphilis. Would you

(13)____1. Tell the woman
____2. Respect the man's wishes
____3. Undecided

10. You are a resident in surgery. A patient who is scheduled for surgery does not know his doctor is on the teaching staff of the hospital and is letting you perform the surgery. Would you

(14)____1. Insist the patient be told
____2. Keep quiet and perform the surgery
____3. Undecided

11. You have a 17 year old daughter who has leukemia. She is in a terminal stage. She wishes no more treatment but the doctor tells you that by giving her more treatment, medical science will learn more for future victims of the disease. Would you

(15)____1. Discontinue treatment
____2. Continue treatment
____3. Undecided

12. A woman has asked you (her gynecologist) to tie her tubes after she delivers her third baby. She is 27 years old. She does not want her husband to know since he disapproves. Would you

(16)___1. Do as the woman requests
___2. Refuse
___3. Undecided

13. You are a psychiatrist on staff of a multinational corporation. The employee you are treating has severe emotional disturbance. He has been recommended for a sensitive position in the corporation. No one knows he uses your professional services. Would you

(17)___1. Inform the employer of the employee's mental state
___2. Be quiet
___3. Undecided

14. Because of religious beliefs, the parents of a newborn have refused to have their child receive a life-saving blood exchange transfusion. Would you - as their doctor

(18)___1. Respect the parents wishes
___2. Get a court order to perform the transfusion
___3. Undecided

15. You are a dietician at a hospital. One of the patients receiving chemotherapy has been experiencing violent nausea as a result of the therapy. Your training has taught you that certain restricted diets can ease this difficulty for some patients. The physician in charge will not listen to you about a special diet for the patient. Would you

(19)___1. See the patient yourself and give him a type-written diet
___2. Not interfere
___3. Undecided

16. You are a genetic counselor. A couple comes to you for an amniocentesis in order to find out if the woman's current pregnancy is female. They have three daughters. You know that they will elect to have an abortion if it is female. Would you

(20)___1. Tell them the sex of the fetus
___2. Refuse to tell them
___3. Undecided

17. A sixteen year old patient comes to you for treatment of veneral disease. She does not want her parents to know. Would you

(21)___1. Treat her without her parents' knowledge
___2. Not treat her without her parents' knowledge
___3. Undecided

18. You operate a sperm-bank. An attractive woman in her early thirties comes in to request an artificial insemination. She is not married would you

(22)___1. Perform the artificial insemination
___2. Refuse
___3. Undecided

19. You are director of a government food stamp program. You discover that children of those receiving food stamps have a high incidence of iron deficiency anemia. In order to assure good nutrician habits, you have public health nurses take blood samples of the children when their mothers come for their stamps. One mother refuses to have her child's blood sampled. Would you

(23)___1. Refuse to give her the food stamps
___2. Give her the stamps anyway
___3. Undecided

20. You are the neighbor of a person who has anemia. The doctor has prescribed pills on which the person gags. As a dietician, you can develop a diet which will provide the needed iron without the pills. Would you

(24)___1. Give your neighbor a diet
___2. Not interfere
___3. Undecided

21. A child's parents have refused to allow the child life-saving surgery because of their religious beliefs. You are a volunteer in the hospital and can get a court order making you the guardian of the child long enough to have the child receive treatment. Would you

(25)___1. Get the court order
___2. Mind your own business
___3. Undecided

22. You have a mentally retarded daughter who is just past adolescence. You know that she will never be able to care for herself. You are worried about the possibility of her becoming pregnant. Would you

(26)___1. Have her sterilized
___2. Do nothing
___3. Undecided

23. An individual's interest is more important than society's interest.
( ) Strongly Agree
( ) Agree
(27)( ) Undecided
( ) Disagree
( ) Strongly Disagree

24. People under 16 have the ability to make decisions about their own health.
( ) Strongly Agree
( ) Agree
(28)( ) Undecided
( ) Disagree
( ) Strongly Disagree

25. When an individual's interest and society's interest conflict, society's interest is more important
( ) Strongly Agree
( ) Agree
(29)( ) Undecided
( ) Disagree
( ) Strongly Disagree

26. A person has the right to impose his/her values on another who does not believe in those values.
( ) Strongly Agree
( ) Agree
(30)( ) Undecided
( ) Disagree
( ) Strongly Disagree

27. A person over 18 has the right to refuse medical care even though that care might save the person's life.
( ) Strongly Agree
( ) Agree
(31)( ) Undecided
( ) Disagree
( ) Strongly Disagree

28. Parents have the right to make decisions for their children under 18.
( ) Strongly Agree
( ) Agree
(32)( ) Undecided
( ) Disagree
( ) Strongly Disagree

29. Health care personnel (doctors, nurses, etc.) are trained to make ethical decision
( ) Strongly Agree
( ) Agree
(33)( ) Undecided
( ) Disagree
( ) Strongly Disagree

30. It is all right for doctors to withhold information from rational patients.
( ) Strongly Agree
( ) Agree
(34)( ) Undecided
( ) Disagree
( ) Strongly Disagree

31. (35-36) Age:____

32. Sex:
____(1) Male
(37)____(2) Female

33. Religion:
(38)____(1) Protestant
____(2) Catholic
____(3) Jewish
____(4) Other

34. Curriculum:
(39)____(1) Liberal Arts
____(2) Vo-Tech
____(3) Other

35. If Vo-Tech:
(40)____(1) Allied Health
____(2) Other

36. Marital Status:
(41)____(1) Married
____(2) Single
____(3) Divorced
____(4) Widowed
____(5) Separated

37. How important is religion in your life?
(42)____(1) Very Important
____(2) Somewhat Important
____(3) Somewhat Unimportant
____(4) Very Unimportant

38. Is any member of your family working in a health-related field (Brother, Sister, Parent, etc.)
(43)____(1) Yes
____(2) No

39. Have you ever worked for a hospital, nursing home or doctor?
(44)____(1) Yes
____(2) No

40. Has anyone close to you been hospitalized for a serious illness?
(45)____(1) Yes
____(2) No

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APPENDIX D

CASE STUDIES GROUPED IN FIVE DIMENSIONS
COMPARED WITH ATTITUDINAL POSITION QUESTIONS

| Case Studies | Attitudinal Position Questions |
|---|---|
| **SOCIAL RESPONSIBILITY** | |
| 4. You have a mentally retarded son who is physically mature. You are concerned that he will father children with the same deficiency. He has been institutionalized since he was five. | |
| 9. You are a general practitioner who has had two young people as patients for many years. You have treated them and their families. They have decided to marry and come to you for their blood tests. The tests reveal the man has syphilis. You know they have had sexual relations. The man refuses to tell his fiance he has syphilis. | |
| 10. You are a resident is surgery. A patient who is scheduled for surgery does not know his doctor is on the teaching staff of the hospital and is letting you perform the surgery. | |
| 11. You have a 17 year old daughter who has leukemia. She is in a terminal phase. She wishes no more treatment but the doctor tells you that by giving her more treatment, medical science will learn more for future victims of the disease. | 23. An individual's interest is more important than society's interest. |
| 13. You are a psychiatrist on staff of a multinational corporation. The employee you are treating has severe emotional disturbance. He has been recommended for a sensitive position in the corporation. No one knows he uses your professional services. | 25. When an individual and society's interest conflict, society's interest is more important. |
| 15. You are a dietician on the staff of a hospital. One of the patients receiving chemotherapy has been experiencing nausea as a result of the therapy. Your training has taught you that certain restricted diets can ease the difficulty for some patients. The physician in charge will not listen to you about a special diet for the patient. | |
| 20. You are a neighbor of a person who has anemia. The doctor has prescribed pills on which the person gags. As a dietician, you can develop a diet which will provide the needed iron without pills. | |
| 22. You have a mentally retarded daughter who is just past adolescence. You know she will never be able to care for herself. You are worried about the possibility of her becoming pregnant. | |

| Case Studies | Attitudinal Position Questions |
|---|---|

## RIGHT TO INFORMATION

2. You are a nurse taking a patient from his room to ex-ray. The patient asks to see his charts while you are pushing him down the hall.

7. You are a nurse in a hospital dispensing medication to a patient. The patient asks the name of the drug he is receiving.

8. You are a physician who has discovered your patient has terminal cancer. You feel the patient should be told the truth but the family doesn't want the patient to know the truth.

9. You are a general practitioner who has had two young people as patients for many years. You have treated them and their respective families. They have decided to marry and come to you for their blood tests. These tests reveal the man has syphilis. You know they have had sexual relations. The man refuses to tell his fiance he has syphilis.

10. You are a resident in surgery. A patient is scheduled for surgery does not know his doctor is on the teaching staff of the hospital and is letting you perform the surgery.

15. You are a dietician at a hospital. One of the patients receiving chemotherapy has been experiencing violent nausea as a result of the therapy. Your training has taught you that certain restricted diets can ease this difficulty for some patients. The physician in charge will not listen to you about a special diet for the patient.

16. You are a genetic counselor. A couple comes to you for an amniocentesis in order to find out if the woman's current pregnancy is female. They have three daughters. You know they will elect to have an abortion if it is female.

20. You are the neighbor of a person who has anemia. The doctor has prescribed pills on which the person gags. As a dietician, you can develop a diet which will provide the needed iron without the pills.

(to some extent, the following may also apply)

19. You are director of a government food stamp program. You discover that children of those receiving food stamps have a high incidence of iron deficiency anemia. In order to assure good nutrician habits, you have public health nurses take blood samples of the children when their mothers come for their stamps. One mother refuses to have the sample

23. An individual's interest if more important than society's interest

25. When an individual and society's interest conflict, society's interest is more important.

30. It is all right for doctors to withhold information from rational patients.

| Case Studies | Attitudinal Position Questions |
|---|---|

## RIGHT TO LIFE

1. You have given birth to a baby without limbs. The baby also has a blockage of the stomach which can be corrected by simple surgery. Without the surgery the baby will not survive.

6. You are a doctor on the emergency ward of a hospital. A teenager has been brought in severely injured. You cannot get in touch with the parents in order to perform surgery.

14. Because of religious beliefs, the parents of a newborn have refused to have their child receive a life saving blood exchange transfusion.

16. You are a genetic counselor. A couple comes to you for an amniocentesis in order to find out if the woman's current pregnancy is female. They have three daughters. You know they will elect to have an abortion if it is female.

21. A child's parents have refused to allow the child life-saving surgery because of their religious beliefs. You are a volunteer in the hospital and can get a court order making you the guardian of the child long enough to have the child receive treatment.

26. A person has the right to impose his/her values on another who does not believe in those values.

28. Parents have the right to make decisions for their children under 18.

## RIGHT TO MAKE ONE'S OWN DECISIONS

3. You are a surgical nurse on staff of a hospital and are asked to assist in an elective abortion. You personally believe that abortion is murder.

5. A man in his late twenties has come to you for a vasectomy. He has children and is married. He does not want his wife to know about the vasectomy since she disapproves.

11. You have a 17 year old daughter who has leukemia. She is in a terminal stage. She wishes no more treatment but the doctor tells you that by giving her more treatment, medical science will learn more for future victims of the disease.

12. A woman has asked you (her gynecologist) to tie her tubes after she delivers her third baby. She is 27 years old. She does not want her husband to know since he disapproves.

18. You operate a sperm bank. An attractive woman in her early thirties comes in to request an artificial insemination. She is not married.

26. A person has the right to impose his/her values on another who does not believe in those values.

27. A person over 18 has the right to refuse medical care even though that care might save the person's life.

| Case Studies | Attitudinal Position Questions |
|---|---|

RIGHT TO MAKE ONE'S OWN DECISIONS (Cont'd)

19. You are director of a government food stamp program. You discover that children of those receiving food stamps have a high incidence of iron deficiency anemia. In order to insure good nutrician habits, you have public health nurses take blood samples of the children when their mothers come for their stamps. One mother refuses to have her child's blood sampled.

RIGHT OF PARENTS TO MAKE DECISIONS

1. You have given birth to a baby without limbs. The baby has a blockage of the stomach which can be corrected by simple surgery. Without the surgery, the baby will not survive.

11. You have a 17 year old daughter who has leukemia. She is in a terminal stage. She wishes no more treatment but the doctor tells you that by giving her more treatment, medical science will learn more for future victims of the disease.

14. Because of religious beliefs, the parents of a newborn have refused to have their child receive a life saving blood exchange transfusion.

21. A child's parents have refused to allow the child life-saving surgery because of their religious beliefs. You are a volunteer in the hospital and can get a court order making you the guardian of the child long enought to have the child receive treatment.

26. A person has the right to impose his/her values on another who does not believe in those values.

28. Parents have the right to make decisions for their children under 18.

## APPENDIX E

## ANALYSIS OF INDIVIDUAL CASES IN MEDICAL ETHICS SURVEY

1. You have given birth to a baby without limbs. The baby also has a blockage of the stomach which can be corrected by simple surgery. Without the surgery the baby will not survive.

This case involves the "right to life" versus "quality of life." Such individuals are dependent beings, more so than others. This child faces a future which can seriously be considered qualitatively low. No mention of mental ability is made. Only physical deformity is questioned here. The respondent is asked to make a decision on the basis of the right to life as over against its own quality of life and the quality of the lives she or he will affect. Comparison with Question 23 will give information on the latter problem. Comparison with case Questions 5, 16, 14, 21 and 3 are also appropriate.

2. You are a nurse taking a patient from his room to x-ray. The patient asks to see his charts while you are pushing him down the hall.

The case considers the right of an individual to have information and access to that information. Although the literature states that any record is open to the patient for his/her perusal, many view this issue as the right of the physician or hospital to keep this type of information from the patient. Letting the patient see the chart is also viewed by many as a decision not to be made by a nurse or attendant. The respondent is asked to decide whether or not to let the patient see the chart, thus to decide whether or not this is a right of the patient.

APPENDIX E CONTINUED

3. You are a surgical nurse on staff of a hospital and are asked to assist in an elective abortion. You personally believe that abortion is murder.

The question considers the appropriateness of remaining autonomous by holding to personal beliefs when they may conflict with institutional demands. Those who answer that they would perform the abortion generally regard authority as the decision making power rather than their own autonomy. Repspondents may also confuse the issue with the possibility of losing their job if they do not assist in the abortion. Such a consideration confuses the issue of morality with expediency and would indicate a middle stage of moral development according to both Kohlberg and Perry.

4. You have a mentally retarded son who is physically mature. You are concerned that he will father children with the same deficiency. He has been institutionalized since he was five.

This case addresses the problem of societal interests and performing a procedure on one who cannot give informed consent. Although it is impossible to analyze the various reasons for respondents' answers, it will be interesting to compare those who respond not to sterilize the person with the question regarding societal interests, Question 25. A further comparison with the question having a female as the mentally retarded subject (22) may indicate sexism on the part of the respondents. Emerging as a further consideration is the interest of the subject. Would it be of benefit not only to society, but to the individual in question not to be capable of fathering children? Again, although legal considerations were to be avoided, the same issue is addressed in the

APPENDIX E CONTINUED

Supreme Court case of Buck vs. Bell.

5. A man in his late twenties has come to you for a vasectomy. He has children and is married. He does not want his wife to know about the vasectomy since she disapproves.

There are several considerations to be taken into account: does an adult have the right to make an independent decision regarding his own body? Does a physician, on the basis of personal belief have a right to refuse a request (26)? Ought sterilizations be granted on the basis of marital concurrence? The issue of male versus female sterilization can be compared with Question 12 which changes the sex of the subject. Religious beliefs opposed to sterilization for reasons other than health can also be compared.

6. You are a doctor on the emergency ward of a hospital. A teenager has been brought in severely injured. You cannot get in touch with her parents in order to get permission to perform surgery.

Consent and fear of malpractise litigation is contrasted with the issue of the right to life and the physician's oath to preserve life. Although respondents have been asked not to consider legal issues in their answers, it will be interesting to note whether or not the consideration of right to life takes precedence over resultant legal and social problems in responses.

7. You are a nurse in a hospital dispensing medication to a patient. The patient asks the name of the drug he is receiving.

This case is similar to Question Two which has as its focal point the right to information. It would be interesting to compare the amount of information the respondents see as the right of the patient to have

by comparing these two cases.

8. You are a physician who has discovered your patient has terminal cancer. You feel the patient should be told the truth but the family doesn't want the patient to know the truth.

Again, the issue of the patient's right to information is contrasted with the right of an authority to give or withhold that information (30). If the physician believes that the patient should have that information, do others have the right to deny it? This answer should be compared with Questions Two and Seven. The status of the decision maker, that is, nurse or doctor, may have an influence on the decision, however, the issue is still the right to information.

9. You are a general practioner who has had two young people as patients for many years. You have treated their respective families. They have decided to marry and come to you for their blood tests. The tests reveal the man has syphilis. You know they have had sexual relations. The man refuses to tell his fiance he has syphilis.

The case involves the right to information. The conflict which emerges is the right of the man to confidentiality. Withholding the information represents a hazard to the female in the case. Respondents may confuse the issue of privacy and right to know with sexism. The comparison of sexism may be made between Question 4 and 5 involving males and Question 13 and 22 involving females. The central issue in this case is societal interests and the right of the female in the case to know. Although the law clearly states the female should be told, respondents were asked not to consider the law in selecting their choice of response. Therefore, a comparison with Question 30

APPENDIX E CONTINUED

and with Question 25 would provide information regarding consistency of responses.

10. You are a resident in surgery. A patient who is scheduled for surgery does not know his doctor is on the teaching staff of the hospital and is letting you perform the surgery.

The issue of ghost surgery has been recently discussed in the Hastings Center Report (1978). Ghost surgery is a method used by teaching institutions to train new surgeons. Since no one wants an inexperienced surgeon to operate on him, patients are not told that someone other than their own doctor will perform the procedure. The problem of the right to information contrasted with societal interests is the conflict. Comparison of this case with Question 30 and 25 may be informative.

11. You have a seventeen year old daughter who has leukemia. She is in a terminal stage. She wishes no more treatment but the doctor tells you that by giving her more treatment medical science will learn more for future victims of the disease.

Two issues emerge in this question: (1) does an individual under 18 have a right to make decisions regarding her own body? And (2) "the interest of science" represents the interest of society over the interest of the individual. Comparison of this case with Question 23, 25 and 28 is appropriate.

12. A woman has asked you (her gynecologist) to tie her tubes after she delivers her third baby. She is 27 years old. She does not want her husband to know since he disapproves.

This is the same as case Question Five except the sex of the subject has been changed. Comparison of this case and Questions 5, 26 (for those

answering 'no') and 27 will give some insight into consistency of responses.

13. You are a psychiatrist on staff of a multinational corporation. The employee you are treating has severe emotional disturbance. He has been recommended for a sensitive position in the corporation. No one knows he uses your professional services.

The issue here is the same as the issue in Question Nine. The legal considerations in the case are also the same. Comparison of this question to Questions 9, 23, and 25 will confirm consistency in responses.

14. Because of religious beliefs, the parents of a newborn have refused to have their child receive a lifesaving blood exchange transfusion.

Respondents answers, "respect the parents' wishes" (1), should be compared with the answers to Question 28. Respondents answering (2) "get a court order" should be compared with Question 26. Again, the issue of right to life is called up. This issue may be compared with the religious beliefs asked for in Question 33 and 37.

15. You are a dietician in a hospital. One of the patients has been experiencing violent nausea as a result of the therapy. Your training has taught you that certain restricted diets can ease this difficulty for some patients. They physician in charge will not listen to you about a special diet for the patient.

Here again, the issue of conflicting demands of information and authority create the problem. This question addresses the issue of the right of an individual to have information. Comparisons with Questions 2, 7 and 30 are in order.

16. You are a genetic counselor. A couple comes to you for an amniocentesis in order to find out if the

APPENDIX E CONTINUED

current pregnancy is female. They have three daughters. you know they will elect to have an abortion if it is female.

The issue of the right to information is involved in this case. Comparison between this case and case Question Three, plus Question 30 should give an accurate cross-analysis of responses. There should be no consideration of difficulty in responding for those who disapprove of the procedure at the outset.

17. A sixteen year old patient comes to you for treatment of venereal disease. She does not want her parents to know.

The right to privacy contrasted with societal interests and parental consent for a minor are at issue in this case. Although laws allow for privacy, the issue may also be one of confidentiality. Comparison with Questions 24 and 28 will point up the inconsistencies.

18. You operate a sperm bank. An attractive woman in her early thirties comes in to request an artificial insemination. She is not married.

Again, the issue of the right to make a decision by an individual and the conflict of personal values by the sperm bank operator causes the dilemma. Comparison of this question with Question 26 will point up the difficulty between what one views as appropriate societally and being a service. That is, do practitioners have the right to decide who is appropriate for certain procedures when a question of health is not involved?

19. You are a director of a government food stamp program. You discover that children of those receiving food stamps have a high incidence of iron deficiency anemia. In order to assure good nutrician habits, you have public health nurses take blood samples of the children

when their mothers come in for stamps. One mother refuses to have her child's blood sampled.

Those respondents who would refuse to give the food stamps (1) should be compared to Question 25, presuming that withholding food stamps to force the mother to have the child's blood sampled is in the interest of society at large. It could also be viewed as one's inflicting his own values on another (Question 26) and the parents' right to make decisions for their children under eighteen, Question 28. It is also possible that those answering to refuse to give the mother food stamps may violate the constitutional right of a mother on the basis of the fifth and the fourteenth amendments to the constitution.

20. You are the neighbor of a person who has anemia. The doctor has prescribed pills on which the person gags. As a dietician, you can develop a diet which will provide the needed iron without pills.

The right to information is the issue in this case. Responses should be compared to Questions 15 and 30.

21. A child's parents have refused to allow the child life-saving surgery because of their religious beliefs. You are a volunteer in the hospital and can get a court order making you the guardian of the child long enough to have the child receive treatment.

Those answering "get a court order" should be compared with Question 14 (2). Questions 28 and 26 should also be cross-analyzed with this case. The issue is the same involved in Question 14 except thtat the person getting the court order is not the physician.

22. You have a mentally retarded daughter who is just past adolescence. You know that she will never be able to care for herself. You are worried about the possibility

APPENDIX E CONTINUED

of her becoming pregnant.

This case is the same as Question Four except the sex of the subject has been changed. Comparison of this case and Question Four will give some insight into consistency or possibly sexism on the part of respondents. The same questions considered for comparison with Question Four will be appropriate for comparison of Males (1) and Females (2) indicated by items in Question 32.

The remainder of the instrument asks for general theoretical positions (Questions 23-30). These items are asked as a control for answering specific case questions which precede them. The fifth page of the survey asks for demographic information such as sex, age, curriculum, marital status and relationship with the health care delivery field.

# APPENDIX F
## MAIN LINE OF DEVELOPMENT
## W. G. Perry

POSITION 1: The student sees the world in polar terms of we-right- vs. other-wrong-bad. Right Answers for everything exist in the Absolute, known to Authority whose role is to mediate (teach) them. Knowledge and goodness are perceived as quantitative accretions of discrete rightnesses to be collected by hard work and obedience (paradigm: a spelling test).

POSITION 2: The student perceives diversity of opinion, and uncertainty and accounts for them as unwarranted confusion in poorly qualified Authorities or as mere exercises set by Authority "so we can find the right answers for ourselves."

POSITION 3: The student accepts diversity and uncertainty as legitimate but still temporary in areas where Authority "hasn't found the Answer yet." He supposes Authority grades him in these areas on "good expression" but remains puzzled as to standards.

POSITION 4: (a) The student perceives legitimate uncertainty (and therefore diversity of opinion) to be extensive and raises it to the status of an unstructed epistemological realm of its own in which "anyone has a right to his own opinion," a realm which he sets over against Authority's realm where right wrong still prevails, or (b) the student discovers qualitative contextual relativistic reasoning as a special case of "what They want" within Authority's realm.

POSITION 5: The student perceives all knowledge and values (including authority's) as contextual and relativistic and subordinates dualistic right-wrong functions to the status of a special case, in context.

POSITION 6: The student apprehends the necessity or orienting himself in a relativistic world through some form of personal Commitment (as distinct from unquestioned or unconsidered commitment to simple belief in certainty).

APPENDIX F CONTINUED

POSITION 7: The student makes an initial Commitment in some area.

POSITION 8: The student experiences the implications of Commitment, and explores the subjective and stylistic issues of responsibility.

POSITION 9: The student experiences the affirmation of identity among multiple responsibilities and realizes Commitment as an ongoing, unfolding activity through which he expresses his life style.

CONDITIONS OF DEALY, DEFLECTIONS, AND REGRESSION
W. G. PERRY

Temporizing: The student delays in some Position for a year, exploring its implications or explicitly hesitating to take the next step.

Escape: The student exploits the opportunity for detachment offered by the structures of Positions 4 and 5 to deny responsibility through passive or opportunistic alienation

Retreat: The student entrenches in the dualistic, absolutistic structures of Positions 2 or 3.

# APPENDIX G
# KOHLBERG'S MORAL JUDGEMENT STAGES

## Pre-Conventional Level

At this level the child is responsive to cultural rules and labels of good and bad, right or wrong, but interprets these labels in terms of either physical or hedonistic consequences of action...The level is divided into two stages:

State 1: The Punishment and Obedience Orientation. The physical consequences of action determine its goodness or badness. Regardless of the human meaning or value of these consequences. Avoidance of punishment and unquestioning deference to power are valued in their own right, not in terms of respect for an underlying moral order supported by punishment and authority (the latter being stage 4).

Stage 2: The Instrumental Relativist Orientation. Right action consists of that which instrumentally satisfies one's own needs and occasionally the needs of others. Human relations are viewed in terms like those of the marketplace. Elements of fairness, reciprocity, and equal sharing are present, but they are always interpreted in a physical or pragmatic way.

## Conventional Level

At this level, maintaining the expectations of the individual's family, group, or nation is perceived as valuable in its own right, regardless of immediate and obvious consequences. The attitude is not only one of conformity to personal expectations and social order, but of loyalty to it, of actively maintaining, supporting, and justifying the order and of identifying with the persons or group involved in it.

Stage 3: The Interpersonal Concordance of "Good boy - Nice Girl" Orientation. Good behavior is that which pleases or helps others and is approved by them. There is much conformity to sterotypical images of what is majority or "natural" behavior. Behavior is frequently judged by intention...

Stage 4: The Law and Order Orientation. There is orientation toward authority, fixed rules, and the maintenance of the social order. Right behavior consists of doing one's duty, showing respect for authority and maintaining the given social order for its own sake.

## Post-Conventional, Autonomous, or Principled Level

At this level, there is a clear effort to define moral values and principles which have validity and application apart from the authority of the groups or persons holding these principles and apart from the individual's identification with these groups:

Stage 5: The Social Contract Legalistic Orientation. Generally with utilitarian overtones. Right action tends to be defined in terms of general individual rights and in terms of standards which have been critically examined and agreed upon by the whole society. There is a clear awareness of the relativism of personal values and opinions and a correspond-

APPENDIX G-CONTINUED

ing emphasis upon procedural rules for reaching consensus. Aside from what is constitutionally and democratically agreed upon, the right is a matter or personal values and opinion. The result is an emphasis upon the legal point of view, but with an emphasis upon the possibility of changing law in terms of rational considerations of social utility... Stage 6: The Universal Ethical Principle Orientation. Right is defined by the decision of conscience in accord with self-chosen ethical principles appealing to logical comprehensiveness, universality, and consistency. These principles are abstract and ethical (the golden rule, the categorical imperative) and are not concrete moral rules like the ten commandments. At heart, these are universal principles of justice, of the reciprocity and equality of the human rights, and of respect for the dignity of human beings as individual persons.

FOUR QUALITIES OF STAGE DEVELOPMENT

1. Stage development is invariant

2. In stage development, subjects cannot comprehend moral reasoning at a stage more than one stage beyond their own.

3. In stage development subjects are cognitively attracted to reasoning one level above their own predominant level.

4. In stage development, movement through the stages is effected when cognitive disequailibrium is created, that is, when a person's cognitive outlook is not adequate to cope with a given moral dilemma.

Adopted from Ronald Duska and Mariellen Whelan, Moral Development.

APPENDIX TABLE XX
PRE-TEST RESULTS BY COLLEGE BY PERCENT

| Question | Oakton | Harper | Mountain View | Wheaton | Bradley | Parkland | Dowling | Queensborough |
|---|---|---|---|---|---|---|---|---|
| 1. Baby with blockage | | | | | | | | |
| 1. Perform Surgery | 21.1 | 50.0 | 69.2 | 44.2 | 46.2 | 73.7 | 64.7 | 41.7 |
| 2. Do not | 52.6 | 10.0 | 19.2 | 36.5 | 38.5 | 10.5 | 11.8 | 41.7 |
| 3. Undecided | 26.3 | 40.0 | 11.5 | 19.2 | 15.4 | 15.8 | 23.5 | 16.7 |
| 2. Nurse show records | | | | | | | | |
| 1. Show | 52.6 | - | 36.4 | 34.6 | 30.8 | 26.3 | 58.8 | 33.3 |
| 2. Don't show | 26.3 | 90.0 | 53.2 | 63.5 | 61.5 | 52.6 | 23.5 | 50.0 |
| 3. Undecided | 21.1 | 10.0 | 10.4 | 1.9 | 7.7 | 21.1 | 17.6 | 16.7 |
| 3. Assist in Abortion | | | | | | | | |
| 1. Assist | 5.3 | 40.0 | 28.6 | 25.0 | 15.4 | 15.8 | 29.4 | 16.7 |
| 2. Not assist | 78.9 | 60.0 | 64.9 | 67.3 | 76.9 | 78.9 | 64.7 | 75.0 |
| 3. Undecided | 15.8 | - | 6.5 | 7.7 | 7.7 | 5.3 | 5.9 | 8.3 |
| 4. Retarded Male | | | | | | | | |
| 1. Sterilize | 47.4 | 30.0 | 26.9 | 32.7 | 53.8 | 52.6 | 35.3 | 41.7 |
| 2. Do not | 5.3 | 20.0 | 43.6 | 44.2 | 15.4 | 26.3 | 41.2 | 41.7 |
| 3. Undecided | 47.4 | 50.0 | 29.5 | 23.1 | 30.8 | 21.1 | 23.5 | 16.7 |
| 5. Vasectomy | | | | | | | | |
| 1. Perform | 52.6 | 60.0 | 65.4 | 67.3 | 30.0 | 42.1 | 41.2 | 50.0 |
| 2. Not perform | 10.5 | 30.0 | 24.4 | 17.3 | 53.8 | 36.8 | 29.4 | 41.7 |
| 3. Undecided | 36.8 | 10.0 | 10.3 | 15.4 | 15.4 | 21.1 | 29.4 | 8.3 |
| 6. Emergency Surgery | | | | | | | | |
| 1. Wait | - | - | 12.8 | 19.2 | 7.7 | 5.3 | 11.8 | 8.3 |
| 2. Do Surgery | 73.7 | 77.8 | 73.1 | 76.9 | 76.9 | 89.5 | 76.5 | 75.0 |
| 3. Undecided | 26.3 | 22.2 | 14.8 | 3.8 | 15.4 | 5.3 | 11.8 | 16.7 |
| 7. Tell Drug Name | | | | | | | | |
| 1. Tell | 94.7 | 70.0 | 83.3 | 88.5 | 92.3 | 94.7 | 100.0 | 100.0 |
| 2. Don't tell | - | 10.0 | 11.5 | 3.8 | 7.7 | - | - | - |
| 3. Undecided | 5.3 | 20.0 | 5.1 | 7.7 | - | 5.3 | - | - |
| 8. Tell Patient Truth | | | | | | | | |
| 1. Tell | 73.7 | 40.0 | 66.7 | 55.8 | 61.5 | 57.9 | 41.2 | 50.0 |
| 2. Don't Tell | 5.3 | 10.0 | 20.5 | 23.1 | 15.4 | 5.3 | 35.3 | 33.3 |
| 3. Undecided | 21.1 | 50.0 | 12.8 | 21.2 | 23.1 | 36.8 | 23.5 | 16.7 |
| 9. Male with Syphilis | | | | | | | | |
| 1. Tell female | 63.2 | 70.0 | 79.5 | 63.5 | 69.2 | 84.2 | 82.4 | 75.0 |
| 2. Don't tell | 10.5 | 10.0 | 12.8 | 25.0 | 23.1 | 10.5 | 5.9 | 8.3 |
| 3. Undecided | 26.3 | 20.0 | 7.7 | 11.5 | 7.7 | 5.3 | 11.8 | 16.7 |
| 10. Ghost Surgery | | | | | | | | |
| 1. Tell patient | 73.7 | 90.0 | 67.9 | 73.1 | 76.9 | 89.5 | 76.5 | 75.0 |
| 2. Don't tell | 15.8 | - | 25.9 | 19.2 | 15.4 | 5.3 | 17.6 | 25.0 |
| 3. Undecided | 10.5 | 10.0 | 6.4 | 7.7 | 7.7 | 5.3 | 5.9 | - |

TABLE XX - CONTINUED

| Question | Oakton | Harper | Mountain View | Wheaton | Bradley | Parkland | Dowling | Queensborough |
|---|---|---|---|---|---|---|---|---|
| 11. Minor with Leukemia | | | | | | | | |
| 1. Discontinue | 57.9 | 60.0 | 60.3 | 71.2 | 84.6 | 73.7 | 41.2 | 50.0 |
| 2. Continue | 10.5 | 20.0 | 26.9 | 11.5 | 15.4 | 10.5 | 41.2 | 41.7 |
| 3. Undecided | 42.1 | 20.0 | 12.8 | 17.3 | 0.0 | 15.8 | 17.6 | 8.3 |
| 12. Tubal Ligation | | | | | | | | |
| 1. Perform | 57.9 | 60.0 | 57.7 | 61.5 | 46.2 | 47.4 | 41.2 | 16.7 |
| 2. Refuse | 10.5 | 20.0 | 25.6 | 15.4 | 46.2 | 21.1 | 41.2 | 50.0 |
| 3. Undecided | 31.6 | 20.0 | 16.7 | 23.1 | 7.7 | 31.6 | 17.6 | 33.3 |
| 13. Disturbed Employee | | | | | | | | |
| 1. Inform | 31.6 | 30.0 | 46.2 | 25.0 | 30.8 | 21.1 | 29.4 | 16.7 |
| 2. Be quiet | 31.6 | 30.0 | 32.1 | 50.0 | 46.2 | 31.6 | 29.4 | 66.7 |
| 3. Undecided | 36.8 | 40.0 | 21.8 | 25.0 | 23.1 | 47.4 | 41.2 | 16.7 |
| 14. Blood Transfusion | | | | | | | | |
| 1. Respect Parent | 42.1 | 0.0 | 17.9 | 13.5 | 15.4 | 26.3 | 11.8 | 75.0 |
| 2. Court Order | 31.6 | 80.0 | 73.1 | 69.2 | 63.2 | 88.2 | 66.7 | 0.0 |
| 3. Undecided | 26.3 | 20.0 | 9.0 | 17.3 | 15.4 | 10.5 | 0.0 | 25.0 |
| 15. Diet for Nausea | | | | | | | | |
| 1. Give Diet | 73.7 | 60.0 | 56.4 | 57.7 | 46.2 | 73.7 | 76.5 | 50.0 |
| 2. Not Interfere | 10.5 | 10.0 | 20.5 | 15.4 | 15.4 | 10.5 | 5.9 | 16.7 |
| 3. Undecided | 15.8 | 30.0 | 23.1 | 26.9 | 38.5 | 15.8 | 17.6 | 33.3 |
| 16. Genetic Information | | | | | | | | |
| 1. Tell sex | 42.1 | 30.0 | 64.1 | 50.0 | 76.9 | 57.9 | 64.7 | 75.0 |
| 2. Refuse | 31.6 | 30.0 | 25.6 | 38.5 | 15.4 | 15.8 | 23.5 | 16.7 |
| 3. Undecided | 26.3 | 40.0 | 10.3 | 11.5 | 7.7 | 26.3 | 11.8 | 8.3 |
| 17. Minor with V.D. | | | | | | | | |
| 1. Treat | 89.5 | 80.0 | 84.6 | 94.2 | 84.6 | 100.0 | 82.4 | 41.7 |
| 2. Don't Treat | 0.0 | 10.0 | 5.4 | 0.0 | 0.0 | 0.0 | 11.8 | 33.3 |
| 3. Undecided | 10.5 | 10.0 | 9.0 | 5.7 | 15.4 | 0.0 | 5.9 | 25.0 |
| 18. Artificial Insemination | | | | | | | | |
| 1. Perform | 36.8 | 30.0 | 38.5 | 42.3 | 30.8 | 36.8 | 52.9 | 16.7 |
| 2. Refuse | 15.8 | 20.0 | 34.6 | 23.1 | 46.2 | 31.6 | 23.5 | 75.0 |
| 3. Undecided | 47.4 | 50.0 | 26.9 | 34.6 | 23.1 | 31.6 | 23.5 | 8.3 |
| 19. Food Stamp Program | | | | | | | | |
| 1. Refuse Stamps | 26.3 | 30.0 | 35.9 | 25.5 | 15.4 | 26.3 | 17.6 | 16.7 |
| 2. Give Stamps | 57.9 | 60.0 | 52.6 | 56.9 | 69.2 | 63.2 | 70.6 | 75.0 |
| 3. Undecided | 15.8 | 10.0 | 11.5 | 17.7 | 15.4 | 10.5 | 11.8 | 8.3 |
| 20. Diet for Gagging | | | | | | | | |
| 1. Give Diet | 73.7 | 40.0 | 67.9 | 71.2 | 61.5 | 73.7 | 70.6 | 50.0 |
| 2. Don't | 10.5 | 20.0 | 16.7 | 13.5 | 15.4 | 10.5 | 11.8 | 41.7 |
| 3. Undecided | 15.8 | 40.0 | 15.4 | 15.4 | 23.1 | 15.8 | 17.6 | 8.3 |

TABLE XX - CONTINUED

| Question | Oakton | Harper | Mountain View | Wheaton | Bradley | Parkland | Dowling | Queensborough |
|---|---|---|---|---|---|---|---|---|
| 21. Blood Transfusion | | | | | | | | |
| 1. Court Order | 26.3 | 70.0 | 73.1 | 51.9 | 61.5 | 57.9 | 64.7 | 58.3 |
| 2. Be Quiet | 42.1 | 10.0 | 15.4 | 26.9 | 15.4 | 26.3 | 0.0 | 25.0 |
| 3. Undecided | 31.6 | 20.0 | 11.5 | 21.2 | 23.1 | 15.8 | 35.3 | 16.7 |
| 22. Retarded Female | | | | | | | | |
| 1. Sterilize | 52.6 | 50.0 | 38.5 | 36.5 | 53.8 | 42.1 | 29.4 | 50.0 |
| 2. Don't | 10.5 | 20.0 | 23.1 | 36.5 | 23.1 | 15.8 | 47.1 | 33.3 |
| 3. Undecided | 36.8 | 30.0 | 38.5 | 25.0 | 15.4 | 42.1 | 23.5 | 16.7 |
| Number of Students | 19 | 10 | 78 | 52 | 13 | 19 | 17 | 12 |

TABLE XX - CONTINUED

| Question | Texas A & M | Cayuga | Rhode Island | Johns Hopkins | Total % |
|---|---|---|---|---|---|
| 1. Baby with Blockage | | | | | |
| 1. Do Surgery | 40.0 | 41.7 | 46.7 | 32.3 | 46.3 |
| 2. Do Not | 40.0 | 41.7 | 20.0 | 45.1 | 33.4 |
| 3. Undecided | 20.0 | 16.7 | 33.3 | 22.6 | 20.2 |
| 2. Patient with charts | | | | | |
| 1. Show charts | 30.0 | 33.3 | 30.0 | 42.1 | 37.6 |
| 2. Do not Show | 70.0 | 70.0 | 66.7 | 44.4 | 51.7 |
| 3. Undecided | 0.0 | 0.0 | 3.3 | 13.5 | 10.7 |
| 3. Abortion which nurse is against | | | | | |
| 1. Assist | 30.0 | 16.7 | 36.7 | 21.4 | 23.5 |
| 2. Do Not | 70.0 | 75.0 | 53.3 | 71.8 | 69.4 |
| 3. Undecided | 0.0 | 8.3 | 10.0 | 6.9 | 7.1 |
| 4. Sterilization of Retarded Male | | | | | |
| 1. Sterilize | 50.0 | 66.7 | 53.3 | 25.0 | 34.6 |
| 2. Do Not Sterilize | 30.0 | 25.0 | 23.3 | 43.9 | 37.1 |
| 3. Undecided | 20.0 | 8.3 | 23.3 | 31.1 | 28.2 |
| 5. Vasectomy | | | | | |
| 1. Perform Vasectomy | 80.0 | 25.0 | 56.7 | 57.6 | 56.8 |
| 2. Do Not | 20.0 | 58.3 | 26.7 | 26.5 | 27.3 |
| 3. Undecided | 0.0 | 16.7 | 16.7 | 15.9 | 15.9 |
| 6. Surgery for Minor without Permission | | | | | |
| 1. Wait | 0.0 | 8.3 | 10.0 | 3.0 | 8.0 |
| 2. Don't wait | 100.0 | 83.3 | 80.0 | 85.7 | 80.7 |
| 3. Undecided | 0.0 | 8.3 | 10.0 | 11.3 | 11.2 |
| 7. Patient and name of drug | | | | | |
| 1. Tell name | 90.0 | 83.3 | 80.0 | 91.0 | 88.8 |
| 2. Do Not | 10.0 | 16.7 | 6.7 | 5.3 | 6.1 |
| 3. Undecided | 0.0 | 0.0 | 13.3 | 3.8 | 5.1 |
| 8. Patient with terminal illness | | | | | |
| 1. Tell Patient | 60.0 | 75.0 | 43.3 | 61.4 | 59.5 |
| 2. Do Not Tell | 20.0 | 0.0 | 33.3 | 15.2 | 18.3 |
| 3. Undecided | 20.0 | 25.0 | 23.3 | 23.5 | 22.2 |
| 9. Syphilis Patient | | | | | |
| 1. Tell Fiance | 60.0 | 83.3 | 83.3 | 78.2 | 75.9 |
| 2. Don't Tell | 20.0 | 0.0 | 10.0 | 12.0 | 13.4 |
| 3. Undecided | 20.0 | 16.7 | 6.7 | 9.8 | 10.7 |
| 10. Ghost Surgery | | | | | |
| 1. Tell Patient | 50.0 | 83.3 | 63.3 | 66.2 | 70.2 |
| 2. Do Not Tell | 30.0 | 0.0 | 20.0 | 24.1 | 20.2 |
| 3. Undecided | 20.0 | 16.7 | 16.7 | 9.8 | 9.5 |

TABLE XX - CONTINUED

| Question | Texas A & M | Cayuga | Rhode Island | Johns Hopkins | Total% |
|---|---|---|---|---|---|
| 11. Minor with Leukemia | | | | | |
| 1. Discontinue | 70.0 | 75.0 | 60.0 | 69.9 | 66.4 |
| 2. Continue | 10.0 | 25.0 | 23.3 | 16.5 | 19.0 |
| 3. Undecided | 20.0 | | 16.7 | 13.5 | 14.6 |
| 12. Tubal Ligation | | | | | |
| 1. Perform | 60.0 | 25.0 | 60.0 | 56.8 | 55.4 |
| 2. Refuse | 30.0 | 58.3 | 23.3 | 23.5 | 25.6 |
| 3. Undecided | 10.0 | 16.7 | 16.7 | 19.7 | 19.0 |
| 13. Disturbed Employee | | | | | |
| 1. Inform | 60.0 | 33.3 | 30.0 | 30.1 | 32.1 |
| 2. Be quiet | 10.0 | 25.0 | 46.7 | 39.8 | 38.4 |
| 3. Undecided | 30.0 | 41.7 | 23.3 | 30.1 | 29.4 |
| 14. Blood Transfusion | | | | | |
| 1. Respect Parent | 11.1 | 8.3 | 13.3 | 16.5 | 16.6 |
| 2. Court Order | 88.9 | 83.3 | 73.3 | 72.2 | 71.5 |
| 3. Undecided | | 8.3 | 13.3 | 11.3 | 12.0 |
| 15. Diet for Nausea | | | | | |
| 1. Give Diet | 70.0 | 66.7 | 66.7 | 67.7 | 64.2 |
| 2. Not Interfere | 20.0 | 8.3 | 3.3 | 12.0 | 12.9 |
| 3. Undecided | 10.0 | 25.0 | 30.0 | 20.3 | 22.9 |
| 16. Genetic Information | | | | | |
| 1. Tell sex | 30.0 | 33.3 | 63.3 | 64.4 | 58.8 |
| 2. Refuse | 40.0 | 50.0 | 16.7 | 22.7 | 25.6 |
| 3. Undecided | 30.0 | 16.7 | 20.0 | 12.9 | 15.6 |
| 17. Minor with V.D. | | | | | |
| 1. Treat | 90.0 | 100.0 | 90.0 | 87.1 | 88.3 |
| 2. Don't Treat | | | 3.3 | 9.1 | 5.6 |
| 3. Undecided | 10.0 | | 6.7 | 3.8 | 6.1 |
| 18. Artificial Insemination | | | | | |
| 1. Perform | 40.0 | 25.0 | 66.7 | 52.6 | 45.7 |
| 2. Refuse | 50.0 | 33.3 | 23.3 | 24.8 | 27.7 |
| 3. Undecided | 10.0 | 41.7 | 10.0 | 22.6 | 26.5 |
| 19. Food Stamp Program | | | | | |
| 1. Refuse Stamps | 20.0 | 33.3 | 30.0 | 29.3 | 28.3 |
| 2. Give Stamps | 60.0 | 66.7 | 60.0 | 60.2 | 60.0 |
| 3. Undecided | 20.0 | | 10.0 | 10.5 | 11.7 |
| 20. Diet For Gagging | | | | | |
| 1. Give Diet | 70.0 | 66.7 | 70.0 | 78.0 | 71.2 |
| 2. Don't | | 16.7 | 20.0 | 9.8 | 13.9 |
| 3. Undecided | 30.0 | 16.7 | 10.0 | 12.1 | 14.9 |

TABLE XX - CONTINUED

| Question | Texas A & M | Cayuga | Rhode Island | Johns Hopkins | Total % |
|---|---|---|---|---|---|
| 21. Blood Transfusion | | | | | |
| 1. Court Order | 66.7 | 58.3 | 73.3 | 60.2 | 61.5 |
| 2. Be Quiet | 33.3 | 33.3 | 13.3 | 24.8 | 22.0 |
| 3. Undecided | 0.0 | 8.3 | 13.3 | 15.0 | 16.6 |
| 22. Retarded Female | | | | | |
| 1. Sterilize | 80.0 | 66.7 | 46.7 | 36.1 | 41.4 |
| 2. Don't | 20.0 | 8.3 | 20.0 | 32.3 | 27.5 |
| 3. Undecided | 0.0 | 25.0 | 33.3 | 31.6 | 4.2 |
| Number of Students | 10 | 12 | 30 | 133 | 405 |